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A FEW WORDS ON THE CULTIVATION OF WHEAT.

CORN, oats, rye, and barley, are all more or less used as food for man—they are all eminently nutritious; but of all cereals, wheat is most preferred, and is most extensively used. On the other hand, few animals relish wheat, and without exception always prefer oats, corn, barley, or rye, where a choice is allowed them. Wheat was designed to supply the principal bread-food of the most active and intelligent portion of the human race. Ever since the sons of JACOB went to Egypt, to buy wheat, with *double money* and a present of "a little balm and a little honey, spices and myrrh, nuts and almonds," the wheat-growing farmers could always find a market more readily than the producers of any other cereal.

Though wheat is a native of the temperate zones, yet it is remarkably hardy, withstanding alike the hottest summers and the severest winters. Its range of *habitat* is more extensive than that of any other cereal. From the cradle of the human race to the last clearing on our western frontier, wheat can be grown. While some soils are much better adapted to its cultivation than others, there are few soils so poor that they can not, by judicious management, be made to produce at least an occasional crop. The soil naturally adapted to the growth of wheat is of very limited extent. Its production for any length of time, in any country, is not an easy matter. Infinite wisdom has so ordered, that those things which are most desirable shall be the most difficult to obtain. As we have said, there is comparatively little land that will naturally produce good crops of wheat; but, on the other hand, there is even less land which intelligent and careful culture can not make to yield more or less wheat. In the county of Norfolk, in England, we have seen, on what was once a "blowing sand," large fields of wheat which would average forty bushels per acre. Farmers must not expect to grow this prime article of human food without intelligent labor. With it, nothing should daunt them. The Anglo-Saxon motto, "*Through*," combined with science, will overcome all obstacles.

It is impossible to lay down specific directions for the cultivation of wheat, adapted to all sections where the *Genesee Farmer* circulates. We can but allude to general principles, and leave their application to the intelligence of the reader. In Western New York, so celebrated for the production of the famous "Genesee wheat," many fears are entertained that wheat culture must be given up on account of the ravages of the midge. We have repeatedly given our reasons for considering these fears unfounded. Farmers here have run their land too hard; they have sown too much wheat and other cereals. They must now sow a less area; select the best portions of the farm, manure judiciously, cultivate in the best manner, and sow early with plenty of seed and an early kind.

By far the greater portion of land in this section needs underdraining. Even intelligent farmers have the crudest and most erroneous views on this subject. They laugh at the idea that light, high, rolling land, can possibly need draining. Yet it is a fact that such land is often full of stagnant water. Dig a trench eight or ten feet long and three or four feet deep; let it remain open for a week or two, and see if in the mean time water does not accumulate and remain in it. If it does, the land certainly needs draining before it can produce healthy, early, maximum crops of wheat. Three-fourths of the land in Western New York is in this condition, and the wonder is, not that wheat so often fails, but that fair crops have been so long obtained. That judicious underdraining *will pay* in this section, has been repeatedly demonstrated. It no longer admits of a moment's doubt. Underdraining is a permanent improvement, and the increase obtained from it is net profit. We know of instances where the *increase* of the first crop of wheat after underdraining has paid the whole cost of constructing the drains. It seems impossible to make farmers believe this. We could wish that every town and county agricultural society in the State would appoint a committee, consisting of two

or three intelligent practical farmers, to visit such thoroughly underdrained farms as those of JOHN JOHNSTON and ROBERT J. SWAN, near Geneva, N. Y., and have them report at a subsequent meeting. Such is the force of *example* in agriculture, that we believe such a visit would lead to much good. We make the suggestion entirely on our own responsibility, feeling confident that Messrs. JOHNSTON and SWAN would cheerfully allow such persons to examine the results of their system of cultivation.

It is quite evident that since the prevalence of the midge in this section, a better system of cultivation, in many instances, has been introduced. Less land is sown to wheat, and more labor is bestowed in its preparation. Farmers are inquiring for the earliest varieties of wheat, and many are sending south for their seed. Mr. Cox, of Scottsville, informs us that he obtained *Blue Stem* wheat from Kentucky, last year, and it ripened this season as early as the *Mediterranean*, and was consequently little affected by the midge. These indications of the general interest felt in the subject of wheat growing lead us to believe that we are on the eve of great improvements in our system of farming.

One of the most notable facts in regard to the growth of wheat in the United States, is the immense quantity of land that is sown to produce a comparatively small quantity of grain. We believe the wheat crop of the United States does not average ten bushels per acre. Where land is cheap and labor high, what has been denominated "high farming" will seldom pay; still, with our unrivaled facilities for the transmission of produce to the great markets of the world, the time has come when a more thorough system of cultivation will be profitable. More labor and less land must now be the rule among farmers, with perhaps here and there an exception. Few of us can manure our land as highly as we could wish, but nearly all can develop the latent fertility of the soil by better tillage, thorough cultivation, and a judicious system of rotation. By so doing, we can gradually increase the quantity and greatly augment the quality of the manure made on the farm. There is, too, on most farms, more or less low land of great natural fertility, which, by draining and good culture, may be made to produce immense quantities of grass and the coarser grains. These will enable the farmer to keep more stock, and thus to enrich the poorer, wheat-growing, upland portions of the farm.

Agriculture is a complex art. The wisest, the most persevering, the most skillful, and the most experienced, will find ample scope for all his energies. This is peculiarly true of the American farmer. A fairer field, a more encouraging prospect, was never offered to the farmers of any age or country. Let us prove ourselves worthy of it.

A SCOTCHMAN'S VIEWS ON WHEAT CULTURE IN AMERICA.

ROBERT RUSSELL, an intelligent Scotch farmer who visited this country in 1853–4, has written an interesting book of 400 pages, on "*North America, its Agriculture and Climate*," and we think a few extracts from his remarks in regard to the culture of wheat in several of the States he visited and in the Canadas, will not be uninteresting.

In the last volume of the *Farmer*, we published some of Mr. RUSSELL's remarks in regard to the cultivation of wheat in Western New York. What follows, is taken from various places in Mr. RUSSELL's interesting and instructive book.

WHEAT CULTURE IN UPPER CANADA.—Mr. R. speaks of the "plains of Dumfries" as the "best district for wheat he saw in Canada West."

"The mode of culture," in this district, "is very similar to what is followed in the Genesee country, but the wheat crops are not in general taken so frequently. But here, also, alternate crops of wheat and clover are often taken. The land, as in Genesee, is deeply plowed in June and July, and the weeds are destroyed by scarifying the surface, thus avoiding the old and less economical system of fallowing out and out for a whole season. The crops on one farm of 140 acres arable land were 50 acres wheat, 16 in peas, potatoes, turnips, and Indian corn. Two men and four horses cultivate this extent of land, with a little additional labor at harvesting. I saw some excellent crops of Indian corn in this district; but here again the complaint was, that it took too much labor, and therefore it was only a small extent that farmers found convenient to cultivate.

"It is the more general practice, however, to allow the land to remain for two years in pasture (artificial grasses and clover), to break up in June, and sow in autumn. Below Paris, I inspected an excellent farm, consisting of 250 acres of clay loam, on which a good deal of stock was kept, and there were only from 30 to 40 acres usually in wheat. The land is pastured for three years, and produces fine grasses that become thick and strongly rooted. It is then prepared for wheat by plowing in autumn, sowing with rape in May, and after this last crop is eaten by sheep, it is fallowed, and sown in autumn. How far this system is preferable to the more frequent cropping with wheat, I do not pretend to decide. An excellent flock of South-Down sheep was kept, and this year the one-year-old wedders, weighing 22 lbs. per quarter, brought two guineas ($10) on the farm, but realized £2 : 8*s.* ($11.50) in the New York market—another striking instance of the advantage that Canada has derived from the opening of railway communication.

"Rust and mildew are the great enemies which the Canadian farmer encounters in raising wheat, and these diseases are far more common on new than old cultivated land. In Canada, as well as throughout the United States, land becomes better suited for raising wheat after the richness is partly worn off. The best preventive of rust and mildew is to sow early; for if the crop is late, the heats of July are apt to ripen it prematurely at whatever

stage of forwardness it may be. * * * * The crops of wheat on the best light soils vary from 18 to 30 bushels to the acre, and on the clay land 40 are sometimes got."

SOWING WHEAT EARLY IN THE FALL. — Mr. RUSSELL makes some interesting remarks in regard to the fact that wheat requires to be sown earlier in this country than in Great Britain. A Canadian farmer informed him that

* * * "wheat could be sown much later upon new land than upon what had been in cultivation for some time. The reason he gave for this was, that the richness of the newly-cleared land forced the wheat to grow rapidly and longer in the autumn, and thus to make up for late sowing."

"Some days after this, I met a farmer who had emigrated from Fifeshire nine years ago, and whom I formerly knew. He had 100 acres of cleared land, most of which was a light loam, resting upon gravel. Upon this extent he had 50 acres in wheat, his usual crop being 1000 bushels. He informed me that all his ideas respecting the nature of the soils best suited for wheat were completely changed since he came to Canada. Wheat, he said, was not so exhausting a crop in Canada as in Scotland, as it could be so easily raised on very light soils; and farther, he maintained that farm-yard manure had not so great an effect in increasing the yield of wheat as it had at home. For this reason, many farmers would not put themselves to the trouble of driving it out, as the clover sod seemed perfectly sufficient for raising a good crop. It would appear that the decaying matter which the clover roots and herbage yield is best adapted in this climate for supplying the wheat plants with the food that they require from the soil. But in my opinion the practice of sowing wheat early in America has also the effect of rendering less manure necessary.

"Nor do I think that the explanation of the matter is at all difficult, if we bear in mind the peculiarities of the climate of the two countries. In the first place, early sowing in America is rendered necessary in consequence of the severity of the winters, for the plants must be well rooted before the frosts set in. In Scotland, wheat sowing is carried on throughout the winter when it is mild, and if the crop has been too early sown on light land, it becomes too thick, which is not desirable, as it is well known that thick wheat usually dwindles away during our long and cold springs, and yields a small return.

"In Canada, on the other hand, the comparatively high temperature of the autumns pushes forward the wheat plants and produces a thick carpet of vegetation, yet vegetation is entirely suspended during the winter. The extra growth which the wheat plant thereby obtains in the long autumns of Canada is kept in reserve, in the shape of sap-stored roots and leaves, until the spring or rather the summer, for in this Siberian climate there is no spring. Within certain limits, then, the more autumn growth that the wheat gets in Canada, the less need has it of manure in the early summer. In Scotland, we see the application of a similar principle in the growth of turnip seed. Bulbs of late summer and autumn growth are first got, and then the nourishment contained in the bulbs is drawn upon next season for the development of the flowers and seeds.

"More than this, the temperature in Britain is low, and the weather often arid during the early stages of the growth of the wheat plant, conditions that demand a more abundant supply of manure. But in Canada the weather remains cool, and keeps vegetation dead until the first week of May, when summer begins in earnest and incipient vegetation is vivified by great heat and an adequate supply of moisture. When these circumstances are duly considered, we need not wonder at the peculiarities in the systems of wheat culture adopted at home and in the Western world.

"One fact connected with wheat culture in America is worthy of being noticed, as it shows the remarkable effect of climate on the plant. In no part of North America which I visited can the common varieties of wheat which are sown in autumn be sown in spring and produce a crop of grain, for they only grow leaves and stems, and do not form ears. Wheat exhibits somewhat similar habits when sown in June on rich land in Scotland. There is a great deal of spring wheat sown in America, called the Black Sea variety, which appeared to be very similar to what is known in this country as April wheat, a red awny variety.

"It is further worthy of observation, that it is of much importance in America to have a thick and well tillered plant of wheat in spring. Late tillering produces coarse and vascular stems, which are particularly liable to be attacked by disease. 'Sow early to prevent rust and mildew,' I heard repeated by the farmers in every part of America. The most of the summer rains in Canada and the United States fall in heavy thunder showers, attended with a high temperature. Such climatic conditions favor rust and mildew, indeed, actually rendering the crops grown on rich land so liable to their ravages that the best soils for wheat in America are those which would be considered inferior ones for the same crop in this country. The further south that I went, the poorer did I find that the soil required to be to produce a healthy crop; and although there is scarcely any winter in Alabama, a well tillered plant seemed to be essential to obtain a healthy ripening crop of wheat even on very poor lands."

The two statements, (1) that wheat "is not so exhausting a crop in Canada as in Scotland," and (2) that "farm-yard manure had not so great an effect in increasing the yield of wheat as it had in Scotland," appear somewhat contradictory. We do not see why wheat is not so exhausting — why it does not require as great a quantity of plant-food — in this country as in Great Britain. But if it does not, *providing the soil needs manure at all*, a given quantity of farm-yard manure — which contains all the elements of plant food — should have a *greater* effect here than in Great Britain. If it has a less effect, it must be ascribed to improper application, or to the soil being in little need of manure.

WHEAT CROPS IN LOWER CANADA. — In alluding to the opinion that naturally good wheat soil be-

comes permanently exhausted and incapable of producing wheat, by bad cultivation, Mr. R. says:

"I had frequent opportunities of conversing with Dr. HALL, Geologist to the State of New York. * * * He informed me that there are districts in the neighborhood of Albany which formerly exported considerable quantities of wheat, but export little now. He admitted, however, that the soil was similar in character to that of the flats of the St. Lawrence, and also to the flat lands along the east shore of Lake Champlain. But none of these soils were really good originally. I have no belief in land becoming permanently exhausted by frequent crops of grain if the soil was naturally good and has not been washed away. There are few or no instances of territories, rich in ancient times, being barren in the present day. A want of security to the peaceful occupation of a country may, indeed, convert it into a wilderness, which state, instead of rendering it barren, restores and husbands its native strength. By fertile soils, I mean such as are found resting upon our trap formations in Scotland. There are no soils that I saw in Canada at all to be compared in natural fertility to what may be found in Fife or the Lothians. The best qualities of our Scottish soils, however much they may be temporarily deteriorated by crops of grain and weeds, are cleaned as well as enriched by lying for a few years in pasturage. The coarse clays on the flats of the St. Lawrence do not support so good grasses for pasture as the thin limestone soils in the island of Montreal, and thus their self-restoring powers are comparatively limited. The vegetable deposit, found on the surface when the land was first cleared, being much wasted, the soil has become less friable and less permeable to the air, and all crops now grow less vigorously. The railway embankments, formed of the light colored clay of the flats, support little vegetation, and the unplowed banks of the rivers have but a thin covering of poor natural grasses—all indicating that the soil was not fertile originally.

"At one time, the flats of the St. Lawrence produced a considerable quantity of wheat, but in the present day they produce little. About twenty years ago, the wheat midge attacked the crops when in flower to such an extent that the farmers found it more profitable to sow oats. This insect also often destroys the wheat crops both in New Brunswick and Nova Scotia, where spring varieties are only sown. The later that wheat is sown in spring, or rather summer, in Nova Scotia, the less liable it is to the attacks of fly. From the 1st to the 5th June is the usual period of sowing, but it is sometimes delayed until the 10th.

"Previous to 1834, the common system that the Canadian farmers followed on the flats of the St. Lawrence was to sow wheat every other year on the same land, without any other preparation than plowing once in autumn and sowing the seed in spring. No artificial grasses were sown for pasturage, and the cattle merely picked up those grasses and weeds that came up naturally. In many parts the same miserable system is still pursued, only oats or barley is substituted for wheat.

"It is worth bearing in mind that autumn-sown wheat was never raised with advantage on the clay loams of Lower Canada, Nova Scotia, or New Brunswick. If the crop withstood the frost in spring, it was generally destroyed with rust and mildew in summer. I saw little or no autumn-sown wheat around Cobourg or Kingston, in the eastern parts of Canada West, where the clay soils are richer than those of the flats of the St. Lawrence; but in driving over the country from Bytown, on the Ottawa, to Prescott, on the St. Lawrence, wherever the soil was light and sandy, autumn wheat was the principal crop. The soils of Lower Canada seem to be unsuitable for autumn wheat, and the same class of soils is so, to a greater or less extent, over the most part of North America. Dr. HALL informed me that there were districts in Ohio which would be better fitted for growing wheat after they were cropped for some time with Indian corn. In their present state they are too soft, in consequence of the vegetable matter that they contain, for wheat ripening upon them, without being liable to the attacks of mildew. I had afterwards many opportunities of verifying this opinion in Ohio as well as in other western States. The hot and moist nature of the summer climate of North America renders the autumn varieties of wheat very liable to disease, and particularly so on soils that have any tendency to encourage grossness in the plant. Hence the physical nature of soils has a much greater influence in America on the growth of wheat than it has in our own cool and less forcing climate, in which it can be raised on all varieties, with the exception, perhaps, of peaty soils.

"I learned that the wheat soils only occupy a small area in Nova Scotia and New Brunswick; that even on the best farms there is rarely more than one-tenth of the arable land sown with this cereal, and almost every farm has a considerable extent of outfield that is allowed to remain in pasture. There is little prospect, in the meantime, of these provinces being able to supply themselves with wheat."

OHIO.—"The natural yield of wheat is not so large in Southern Ohio as in Canada West and the Northern States, but the smaller yield is obtained at less expense. I was quite astonished at the easy way in which wheat is got in the neighborhood of West Liberty, and I afterwards learned that the same system is followed in all those districts in which the Dent corn is cultivated. The wheat which was sown after the Indian corn was already (Oct. 21) beautifully green, though not quite so forward as what had been sown after clover, but the crop of Indian corn was still standing in round "shucks," in the field. The corn had been cut, and put up in rows in these shucks, which were about three feet in diameter at the bottom, and, tapering to the top, were tied with pieces of the stalks. In this State, the Indian corn is secure from the influence of the weather, and might stand uninjured till spring, as the cob is completely protected by its sheath. In many instances, the fields upon which the Indian corn was thus standing had only got some harrowing to prepare it for the wheat, which had been either drilled or sown broadcast, and again harrowed to cover it, and the stubble of the Indian corn was seen over the fields from six to eight inches in height. By this system, the wheat is got early into the ground in autumn—a condition essential to its successful cultivation throughout America. The Indian corn is removed

from the wheat fields in winter, and the small spots of ground upon which the 'shucks' stood are sown with spring wheat."

KENTUCKY.—"That the natural produce of wheat is much smaller in the fine grazing lands in Kentucky than in the country immediately to the south and north of lakes Erie and Ontario, was the testimony of all the farmers with whom I conversed. The same lands which yield on an average 75 bushels of Indian corn, would not yield more than 18 bushels of wheat. In Southern Ohio and Kentucky, those conditions of climate prevail which are favorable to producing the maximum yield of corn, but which are not equally well suited for large crops of wheat."

"The ground is seldom manured for crops of any kind in Kentucky or Ohio. As yet labor appears to be worth more when applied in cultivating a larger area of land than in collecting and applying manure to a smaller one. However, as the most of the stock is fed out of doors, there is little manure made about the yards. The principal maize-producing districts in Ohio are along the margins of the Scioto and Miami rivers, which are too rich for wheat. General BIERCE, in his address to the agriculturists assembled at the county fair at Medina, said that 'sandy land is preferable for wheat over clay soils.' This sounds rather curiously to a Scotch farmer. The General gave a chemical reason for it, which I need not repeat; but the circumstance shows how much climate may alter our ideas respecting the characters of the soils which are best suited to certain crops."

MICHIGAN.—There is an interesting account of the farm of Mr. UHL, "a most intelligent agriculturist, who resides in the neighborhood of Ypsilanti." The land, he says, is oak opening.

"The soil consists of a light sand, which seemed to contain so small a percentage of vegetable matter, that I thought it might do to mix with lime to make mortar. There is little difference in the color of the soil and of the subsoil. And I was surprised when Mr. UHL assured me, that as good wheat and potatoes would be raised upon what was brought up twenty feet below the surface as on the surface soil itself. If he plows deep, he considers that there is no occasion for applying any extraneous manure, save a little gypsum, for the clover or the Indian corn. The condition of this farm, when contrasted with those adjoining, served to confirm the opinion I had already formed, that the wheat soils of America stand less in need of manure than of good cultivation, and a rotation of crops of not too exhausting a character. The young layers of red clover on this farm were beautiful; even the plants in those fields which had been pastured for two years were thick and vigorous. The rotation which he prefers is three years in clover, followed by Indian corn, and then wheat. Among the latter, clover is again sown. Wheat, however, is generally sown after clover in this part of Michigan." * * *

* * "One farm, of 110 acres, not all arable, was pointed out where the land is very light, but on which 70 acres were sown with wheat, and on some of the fields several crops had been taken in succession.

"Under good management, 30 bushels of wheat are sometimes got to the acre over the farm; but the average produce in Michigan is not one-half of this quantity."

Mr. RUSSELL, in company with Prof. HOLMES, Secretary of the Michigan State Agricultural Society, visited the farm of the President of the Society, at Prairie Ronde.

"The farm is 160 acres in extent, and two young men performed all the labor. On this he cultivates 60 acres of wheat, and 60 of Indian corn, every year. These crops are often taken alternately for a number of years. A peculiarity in the mode of raising Indian corn was seen on this farm, which admits of the land being thoroughly cultivated by the plow in summer. It was planted in rows, at intervals of eight feet, and the distance between the plants in the rows from six to eight inches. Wheat can be sown early in autumn, and grubbed or harrowed in long before the Indian corn is harvested. In fact, while I was there, though the wheat was matted over the ground, I saw a wagon drawn by a horse betwixt the rows of corn, and a man on each side pulling off the ears and throwing them into it. The stalks of Indian corn were left standing as before, and would remain till spring, affording some protection to the wheat plant against the high winds that sweep across this country in winter. Even where Indian corn was cultivated in three-feet rows or squares, wheat was growing among the withered stalks from which the grain had been gathered. Thus, although wages are high, and the crops of winter wheat do not average more than 14 to 16 bushels to the acre, yet they are raised at comparatively little expense in alternation with maize, which yields from 45 to 70 bushels.

"The young layers of red clover were thick and vigorous. When a field is seeded for grass, it is allowed to remain for two or three years, which serves to solidify the soil, and render it better adapted for winter wheat. Around some of the fields the finer pasture grasses were growing luxuriantly, and producing a fine herbage."

WHEAT ON THE PRAIRIES.—"It is owing to the nature of the soil of the prairies, and not to the climate, that so little wheat is sown in autumn. This appeared quite evident from the fact of autumn wheat being sown on all the gravelly soils of the prairie knolls. The high winds, attended with intense frosts in winter, often destroy the wheat plants, and the spring frosts and thaws also are apt to throw them out of the loose and open prairie soils. These agents, and the tendency of the wheat to mildew, are the causes of so little being sown in autumn. Wheat succeeds well as a first crop when the prairies are broken up, for the plants obtain a firm hold among the roots of the natural grasses and herbs; but as soon as the turf becomes moldered down into a loose and friable soil, it is liable to suffer from the winter and spring frosts, and is then far from being a sure crop. For these reasons it is not probable that the prairies will ever produce much fine winter wheat, but I am greatly mistaken if they do not become the principal region for the growth of spring varieties, which can be raised with great facility."

Southern Indiana.—"A farmer and miller, who resided in the southern part of Indiana, informed me that the wheat crop this year would not yield more than eight or ten bushels to the acre. The average produce of the best wheat soil in this part of the country was not more in ordinary years than eighteen bushels an acre, as it produces too much straw, though not one farmer in fifty applies any manure to his fields. However, Indian corn averages seventy-five bushels to the acre. Four years ago, the price of this grain was only ten cents a bushel in Southern Indiana, and the ordinary price was only about fifteen cents before the railway was opened. Barley is more productive than wheat, often giving fifty-five bushels an acre, when the crop is winter sown."

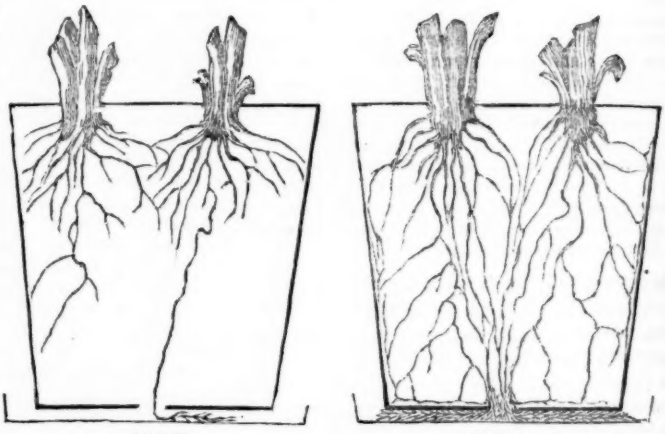
Virginia.—"I walked over a large farm in the alluvial land, lying south of the James river. There were sixty negroes old and young on this farm, which was one of the largest in the neighborhood. Out of this number, not more than twenty-five hands were available for work at this season.—Twenty-two mules and eight oxen were required for cultivating 250 acres wheat, 140 Indian corn, 100 acres of oats. The produce of wheat is about 16 bushels to the acre, and of Indian corn, 40 bushels. The rotation of crops usually followed is —1st, Indian corn; 2d, wheat; 3d, clover; 4th, wheat; 5th, oats or pasture.

"The whole force of the plantation was concentrated on one field of wheat stubble. The crop had been threshed out in the field, and the negro women were carting the straw from large heaps and spreading it over the land for manure. The soil being somewhat stiff, the plows were drawn by four large mules—two negroes to each plow, one to hold the plow and the other to drive the animals. The operations were done in the most slovenly manner."

CULTIVATION OF WINTER BARLEY.

The cultivation of winter barley is rapidly extending in Western New York. We hear it highly spoken of by all who have tried it. It ripens early, and thus escapes the midge, while spring barley, the present season, has been considerably injured by this insect.

Winter barley needs as thorough cultivation as winter wheat;—in fact, it is reasonable to suppose that it requires better tillage than wheat. It is easy to get land too light and loose for wheat, but every one knows that land can not be made too fine and loose for barley. One reason for this may be found in the fact that the roots of barley have a more superficial and confined area around the crown of the plant than wheat, the roots of which penetrate to a great depth. This is well shown, incidentally, by some experiments of Mr. Lawes, in which barley and wheat were respectively grown in pots, and both during the summer months. In the case of barley, only one single fibrile found its way through the bottom of the pot, while the wheat threw out such a mass of ramifications that the whole of the surface of the dish in which the pot rested was covered with a thick network of roots, as also was the bottom, and to a great extent the sides, of the inside of the pot itself. The following sketch, taken on the spot when the plants were removed from the pots, will convey a better idea than any verbal description:



BARLEY. WHEAT.

The roots of barley are very near the surface, and it is desirable to encourage this natural superficial growth by providing them a loose surface soil to grow in. This is quite in accordance with the practice of the best barley growers. On the other hand, the roots of wheat naturally penetrate to a greater depth, and it is well to encourage this natural habit by compressing the surface soil, and thus prevent the plants from throwing out fibrous roots near the surface, where they would be more liable to be thrown out *in the winter* by freezing and thawing. One of the heaviest crops of wheat we ever saw, was obtained from very highly manured land, sown unusually early, and eaten down close with sheep during the winter and spring. The sheep were also folded and fed on the land, for the purpose of consolidating the surface as much as possible, and thus encourage the development of roots deep in the soil.

Barley, as we have said, delights in a loose, friable surface soil. The roots are very circumscribed

and near the surface. Winter barley, therefore, is more liable to injury from the uplifting of the roots than wheat. It should therefore be sown only on land which is well drained, and the more thoroughly the land can be pulverized, the better.

It is best to sow the first or second week in September, but fair crops have been obtained sown as late as the first of October. One and a half bushels of seed is the usual quantity in this neighborhood, but two bushels is none too much. With good soil and culture, forty bushels per acre is not an unusual crop.

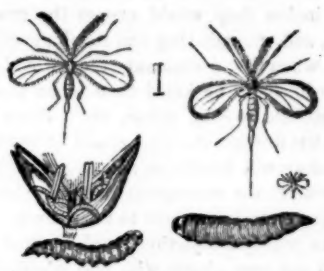
WINTER WHEAT IN NEW HAMPSHIRE.

Levi Bartlett, of Warner, N. H., in an article in the *Boston Cultivator*, states that, for two or three years past, spring wheat has suffered badly in his neighborhood from the ravages of the midge, and also from rust. His experience in the cultivation of winter wheat is in accordance with our own views on the subject. He says:

"Winter wheat has been successfully grown here for several years, and in most cases with very satisfactory results where the sowing was done in season, and a proper soil selected, and good culture given. Without these requisites, the growing of winter wheat is an uncertain branch of farming; *with them*, the winter wheat crop is as sure as almost any other we grow. That's my opinion, founded upon five successive years' practice. During this number of years, I have suffered no material loss by the ravages of the midge, the Hessian fly, or rust, or winter-kill, and other farmers among us have been equally successful; while, on the other hand, some have failed in their attempts to grow it, and their wheat was highly to be commended for not doing any better under the treatment it received!"

Top Dressing Wheat at the Time of Sowing.—An intelligent farmer in Mendon, N. Y., informs us that last fall he top dressed part of a field of wheat with fine manure, and harrowed it in immediately after the seed was sown. On the part so dressed the wheat was a week earlier and produced *double the crop* as that on the land unmanured. It is true, the land that was top dressed was higher and drier than the unmanured portion. On the latter, the wheat winter-killed badly; the crop in consequence was thin and late, and the midge destroyed nearly the whole of it. Still, he is satisfied that a top dressing of good fine manure gives the young plants a good start in the fall, enables them to withstand the winter better, and brings the crop rapidly forward to maturity, and thus not only increases the growth but lessens the danger of injury from the midge.

The corn crop of the United States in 1850 was 592,326,612 bushels. Of this, 11,000,000 bushels were used for distilling purposes.



THE WHEAT MIDGE—A SUGGESTION.

Since farmers have discovered that the wheat midge can propagate itself in barley and other crops, and that, therefore, it is vain to give up wheat culture till this insect "passes over," they are beginning to inquire if nothing can be done to destroy it, or at least keep it in check. We have no doubt that means will be discovered to accomplish so desirable an object, now that farmers are awake to its importance. The first step is to get a familiar knowledge of the nature and habits of the insect.

The fly lays its eggs in the middle of the flower while the wheat is in blossom, and when they hatch, the little lemon-colored larvæ abstract the juices of the grain, and cause it to shrivel. When full grown, they drop to the ground and penetrate the soil about an inch. Here they lie in the pupa or grub state all winter, and come out as flies the following June. We annex a cut of the male and female fly, magnified, and also of the larva and the pupa.

There is not much chance of destroying the midge in the fly state; but can not we destroy the larva or pupa? Many of the larvæ remain in the shriveled grain and in the chaff. These can easily be destroyed by burning the chaff and refuse grain, and the larvæ themselves can frequently be swept up in large quantities; these too should be thrown into the fire.

To destroy those in the ground, we would suggest, first, to burn the stubble. This is known to be the best means of destroying the Hessian fly, which is also a great pest to wheat growers. After burning over the stubble, gang-plow it about two inches deep, and let it remain in this state all winter. Then the following spring plow it with a Michigan double plow, turning the two inches of loose surface soil to the bottom of the furrow, and then throw a good furrow six or eight inches deep on the top of it.

The reasons for these suggestions are obvious. Burning the stubble would probably kill a portion of the larvæ, and remove the vegetable matter which affords protection to the pupa in the soil during the winter. Plowing the wheat stubble

two inches deep would expose the grubs to the frost, and, though they can stand a good degree of cold when lying dormant, they would be much more likely to be killed than when protected by the stubble, weeds, clover, etc. Those which escape the fire and the frost would be buried so deep that they will hardly be able to get to the surface. Of course, the subsequent plowings should not be so deep as to bring them to the surface.

The principal objection to this method is that we could not sow clover with the wheat. But this can easily be obviated by sowing clover with barley, and even with oats and Indian corn. The present practice of seeding the wheat with clover is the most favorable one that could be devised for the propagation of the midge. The clover plants afford the pupa protection during the winter, and the ground is undisturbed in the spring. Where wheat that has been much affected with midge this season is seeded with clover, it might be well to allow the clover to get a good start next spring, and then plow it under, if possible in the way we have suggested, with a Michigan double plow, burying the surface soil and the midge six inches below the surface. This would probably check them, if it did not kill them. The land might be planted to corn, and manured in the hill if the subsoil is poor.

We make these hasty suggestions for the consideration of our readers. We are confident that they have intelligence, perseverance, and skill, sufficient to cope with this fearful pest, and that if the methods recommended above prove useless, others will be discovered that will be more effectual.

FAIR OF THE ROYAL AG. SOCIETY OF ENGLAND.

THE Twentieth Annual Exhibition of the Royal Agricultural Society of England, recently held at Chester, is said to have been the most successful Fair yet held by the Society. The receipts were nearly $30,000, "an amount probably exceeding," says the *Agricultural Gazette*, "the annual income of the Society from all other sources, and which will probably place the Chester Meeting among the few occasions on which the annual gatherings have been a profit instead of an expense." This great Society, it is said, has expended $750,000 in the promotion of agricultural improvement during the last twenty years!

There were 308 head of cattle exhibited. Of these, 126 were Short-Horn, 69 Herefords, and 37 Devons; the remainder were Dairy, Welsh, and "other beasts." In this department the show was one-third larger than the average of the last six years, and one-fifth larger than last year. As usual, the Short-Horns were the most numerous; "and though there were extraordinary animals among them," says Mr. HOWARD of the *Boston Cultivator*, who attended the exhibition, "the class presented a wider contrast between the best and worst than any other breed. In *average* merit, the Herefords and Devons were certainly superior. Scarcely an animal could be found among the Herefords that would not be admitted to be superior. Their size, too, was larger than I supposed Herefords would average. We have heard much of the superior early maturity of the Short-Horns, but the yearlings and two-year-olds in this class were as fat as any cattle of their age I ever saw—not even the Short-Horns excelling them." The *Mark Lane Express* says: "We have seen better Short-Horns before, but never so many first-class specimens together. We are glad to note so many fine young animals growing up to supply the place of the matured prize beasts, for which there is such a large foreign demand."

Cheshire is the great dairy county of England, and the Chester Local Committee offered prizes amounting to $850, for "Cattle best adapted to Dairy Purposes." In reference to this class, the *Mark Lane Express* says: "It is a matter of great importance to see whether breeds or crosses profitable as feeders can also be good milkers; or whether we must, for dairy purposes, develop the udder or milk-vein at the sacrifice of fattening properties. The answer to the question is, *that the Short-Horns and some good ones too, have come in for most of these prizes.*" Some of the Short-Horns in this class are said to have "wonderfully great capacity of frame, and every appearance of being good milkers."

The show of sheep was exceedingly good, "but not equal to some former years in quality or excellence in hand or proportions." Last year there were 443 entries, this year only 256. Mr. HOWARD says: "The Leicester sheep were generally wanting in substance. Some say the breed is running out. * * The Cotswolds were numerous, and of wonderful size and fatness. They are strong, hardy sheep, for such large ones. The Oxfordshire Downs are large and of good form. They are evidently a well established variety. The Shropshire Downs were numerous, and of very useful character. * * The South Downs were numerous, but, as a class, not of that marked merit which might have been expected." [JONAS WEBB, Mr. OVERMAN, and some other celebrated breeders did not exhibit.] Still, some lots were very fine."

"The swine," says Mr. H., "made a wonderful show. The so-called 'small breeds' were large enough for any useful purpose, and the 'large breeds' of mammoth size—the live weight of some being put at 1000 lbs. to upwards of 1100 lbs. There were no better animals in the 'small' class

than the Suffolks and Black Essex (or a similar stock) belonging to THOS. CRISP, well known in America as a breeder of swine."

The show of horses seems to have disappointed Mr. H. He says: "In regard to the horses, I did not see one in the classes mentioned" ["Thoroughbred, Hunters, Roadsters," &c.,] "that would be thought middling in New England or New York. But Englishmen say it was no representation of what there is in the country. The agricultural horses were numerous, and many of them of very superior character. The Suffolks appeared to be the favorites. * * But on the whole, I think the Clydesdale, which I saw in Lanarkshire and other parts of Scotland, were equal, if not superior, to any in the show. They are indeed valuable horses. With weight enough for almost any service, they have style and action nearly equal to any light horses."

In the implement department, Mr. H. notices Crosskill's Bone-Mill, worked by steam, and which "devours bones of all sorts and sizes, including horn-piths of enormous dimensions, (from African cattle, buffaloes, &c.,) like some carniverous monster." There were 105 engines and 88 threshing machines, "but nothing that we need to adopt in America." Mr. H. gives an interesting account of the trials of steam plows, and concludes that "though the trials at this exhibition demonstrated the practicability of using steam in cultivating the earth, they afforded nothing satisfactory in regard to the *expediency* of using it."

ASHES FOR CORN.—My plan would be, unless I had ashes to waste, to put on the top of each hill of corn (*directly after planting,*) a small handful of ashes. Ashes for some soils are of much greater utility than plaster, and no soil should be cheated of the ashes made on the farm,—unless perhaps a heavy clay, devoid of drainage; and on such a soil nothing in the shape of manure or fertilizer will do any good.

If I wished to seed the rye field with grass this fall, I would harrow thoroughly after the rye is cut, sow the ashes broadcast, and the seed after it. This as soon as possible after the rye is off, and let the rain put in the seed to the requisite depth,—which it will do, so far as my experience goes. C. BRACKETT.—*Rochester. Ind.*

MULES *vs.* HORSES.—I noticed in your last issue an article about mules and horses. I think it a very good and plain article. I would say that I wonder farmers have not already seen the advantage of the mule over the horse. Here a sound two-year-old mule will sell easily for $100, a five-year-old generally for $250, while a horse colt of two years will not sell for more than $60 to $75, and a horse of four to five years, sound, (which is very hard to find,) for from $100 to $150. A BEGINNER.—*Rich Valley, Alleg. Co., Pa., Aug.*, 1858.

SUGGESTED ITEMS.—No. 24.

THE harvest is over, so I may give a little time to the *Farmer*, to-day. A capital number is that for August; give us such every month, and your appreciating readers will all become "life subscribers," and life *agents* as well. In fact, a good paper ever makes for itself enduring support.

"*An English View of American Agriculture*" is not to be wondered at when so many of our own writers talk of "exhausted soil" and "decreasing average crops"—a cry which you so well answer. Not long since, a correspondent of a leading eastern agricultural paper objected to draining, "because it hastens the decay of vegetable matter in the soil," as though inert vegetable matter is of any use, save as fed upon by crops, and, of course, consumed. The faster we can *impoverish* the soil by growing large crops, the better. We have only to feed them in turn, to carry on the most productive and hence most profitable system of agriculture.

"*Salt as a Manure*" has long been employed, but we have seen no explanation of its action so reasonable as that of Prof. WAY. We shall try it on the few acres of wheat we intend to sow this year.

"*Bean Straw for Sheep*" would hardly answer as a constant food, though highly valuable for these animals occasionally. We have given it once a day with excellent results, but never heard or thought of depending on it entirely. Most animals, and none more than sheep, like a change of forage.

"*Plow Deeper!*" Yes! don't be afraid of going too low with the plow. Try the experiment, at least, if you are not satisfied on the subject.

"*The Cultivation of Beans*" receives new light from Mr. INMAN'S communication. Our own limited experience agrees with his, that a good soil produces the best beans, and that good culture will not injure them, but, on the contrary, much increase the product.

"*The Profits of Farming*" are often underrated. Because a man can not show a pile of hard cash at the end of the year, it does not follow that he has made nothing at farming. If he had kept an "expense account" of the items outside his farm business, it would have shown him "where the money goes," little by little, very likely.

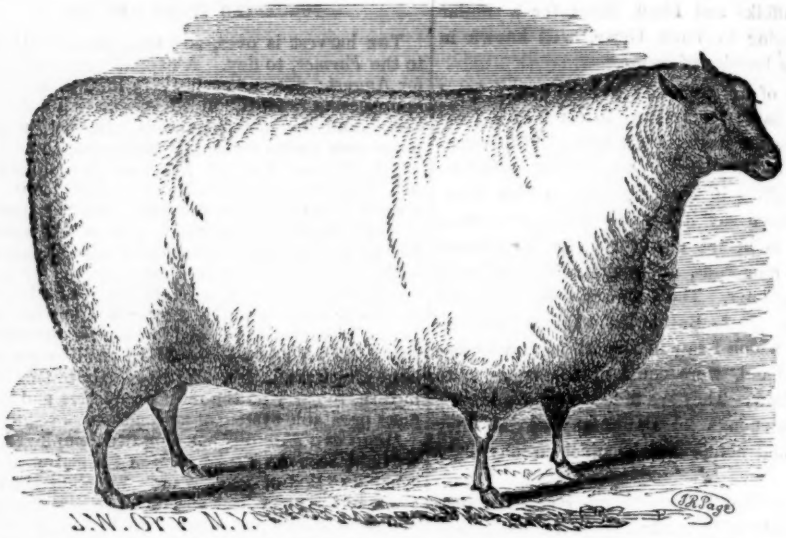
"*The Barometer*" is truly a valuable instrument, and every farmer will do well to have one. The "signs of the sky," however, are not to be despised, as read by an experienced eye.

"*Rust on Oats*" is not confined to Kentucky, or other Western States. Late-sown oats are badly rusted in this county, and no doubt through the country, but not to the same extent of injury, perhaps.

"*The Failure of Fruits*" seems very general this season; but it is not an entire failure, like some years. There will be a few apples, peaches, pears, etc., but no surplus in most instances. We have a large pear tree which last year produced several barrels of fruit; this year it will not give a bushel, and those nearly all on one limb, but it is making a fine growth—sending out new shoots to repair the injuries suffered from blight some years ago.

Niagara Co., N. Y., August, 1858. B.

BOTS IN HORSES.—A friend informs us that he has found feeding the horses a mess of potatoes once a week an effectual remedy for bots in horses.



"MASTER FORDHAM," THE PROPERTY OF MESSRS. MOWE & HAINES, OF SACRAMENTO, CAL.

SOUTH DOWNS FOR CALIFORNIA.

In the January number of the *Farmer* we gave some account of the "Webb's American Flock" of South Down sheep belonging to Mr. J. C. Taylor, of Holmdel, N. J. Mr. Taylor writes us that he has recently sold eight rams and two ewes to Messrs. J. W. Mowe & J. W. Haines, of Sacramento, California, at "a larger average price than any sale of South Downs ever made in this country." The purchasers have some thousands of sheep of the Mexican and American breed, and propose to cross them with the South Down for the purpose of improving their mutton.

We annex a cut of one of these rams — "Master Fordham." He was sold for $300 — a sum which is said to be $100 higher than was ever before obtained for a South Down ram bred in this country.

Mr. Taylor breeds nothing but Jonas Webb's South Downs. Mr. Webb has recently shipped him one of his very best rams — one for which he was offered over $1000 for the use of, last season.

There can be no doubt that the South Down mutton is the finest in the world. It commands a higher price than any other in the London market, and will do so in this country when better known.

Yield of Sugar from Maple Trees.—Honestus Stearns, of Felchville, Vt., writes us that Abial Kipp, Esq., of West Windsor, Vt., made 380 lbs. of sugar from 24 trees, in the spring of 1857. Olney Bates, of Springfield, Vt., made 70 lbs. from one tree. The usual yield of this tree was 40 lbs. Mr. Stearns urges everyone to plant the Maple, as well for its usefulness as for its great beauty.

NOTES FOR THE MONTH.—BY S. W.

Milwaukee and the West.—I arrived here the last of July, after a very pleasant and truly refreshing passage in the fast propellor *Mendota*, with her powerful oscilating engine. Although we run from Buffalo to Cleveland in less than sixteen hours, under steam alone, the stoppage there to land and receive freight, then at Detroit, Mackinac, Manitou, Manitowoc and Sheboygan, prolonged the passage to four days; but it was a pleasant prolongation to those who loved cool dog days, and who had eyes to see; and methought there were fewer among our host of passengers who wanted to annihilate time and distance, than I had sometimes seen in a single railroad car. The passage down to Buffalo is made a day and a half quicker, as the strong current in St. Clair and Detroit rivers is then with you, and you only stop twice on the way, except at Detroit, for wood; making the short cut by the Canada shore through Lake Erie to Buffalo.

As we were at Mackinac at night, I saw no arated soil until we held up to wood at South Manitou. This is a fine, high, well wooded island, the soil very coarse yellow sand and pebbles, but nevertheless so rich in the mineral elements of plants, that the high lands are covered with large deciduous trees, beech, maple, etc., while the lower grounds display a variety, including the evergreen spruce, balsam, etc. The corn was in full tassel, but of a very small variety. Potatoes, though not very forward, looked well; no rot has ever visited this region, and it is said that the potatoes here are very superior in quality and flavor. But the soil of all this region lacks alumina; both on the high Michigan shore, and at the Mackinac, Fox, Beaver and Manitou Islands, the quartzore principle is so predominant that all the Lake water in this region acquires a transparency nowhere to be found further south; at the Manitous the white, pebbly bottom may be seen as through a pane of glass at a depth

of more than twelve feet, while in Milwaukee bay the water is as opaque as river water.

Wood and fish, with a few potatoes, are the staple articles of these islands. At Mackinac we took on 100 packages of fish, and four invalid lady passengers. These last were anything but the counterpart of the lively fair ones we had received at Buffalo and Cleveland; feeble as they were, they had no heart to feel that the noisy little children they now encountered were of the kingdom of heaven; this brought out the mothers, who did believe it, into sad recrimination, and our ever-vigilant little captain was appealed to, to abate grievances, when all at once a power greater than he, in the form of thunder and sharp lightning closely preceding each loud clap, now stilled every selfish impulse, and effectually relieved the captain from all after responsibility in the premises.

After passing the Sleeping Bear, on a sandy headland of Michigan, we take our course by compass for Manitowoc, on the Wisconsin shore, where we arrive early in the evening and leave freight. Before midnight we land freight and passengers at Sheboygan, and are early on our course for Milwaukee. At Manitowoc, all were bewailing the present stagnation and low price of lumber; just as though the late enormous high prices had not brought about that fast living and headlong speculation, which is now receiving its only legitimate and truly practical cure.

At sunrise next morning we were in sight of the headland or north point of Milwaukee bay. With a stiff south-easter, sail vessels now laid their course for that harbor, but as we were going eleven knots, the captain would not turn up the tired crew to make sail. As we rose from a breakfast of freshly corned trout, we were gliding into Milwaukee's now matchless harbor. The late rains, added to the back water of the now high lake, had floated up by the roots the aquatic vegetation from the submerged flats of the Menomonee: and the lower harbor was now full of floating islands, covered with sedge grass, flags, and tall weeds in blossom.

This is emphatically a great modern city, as substantial as it is elegant in architectural solidity and finish; the only puzzle is, where did the millions come from to build in so short a time such a city of large and costly palaces, public buildings, ambitious mansions, and long streets of tall monster blocks of stores and warehouses; and above all, a sixty thousand dollar schoolhouse, with the *semblements* of Bruxelles carpets and French chandeliers included. Here are many mansions whose iron fences or marble vases, and other yard embellishments, cost more money than some of the best houses of an early Western New York village. But Western New York was settled during the day of small things, when wealth was only such by comparison with what would now be looked on as great civilized destitution; now the subsequent earnings of New York and the whole east have contributed to the growth of this great western city. Many brought capital with them; some brought fortunes made in trade elsewhere; real estate rose in value, trade increased, and the railroads were built. Germany has also added much to the wealth, intelligence and industry of this place; a large portion of the laborers, mechanics and manufacturers are Germans, and some of the richest traders. Nearly all the north and west part of the town is German; yet homogeneous as these Teutons are, many of the more wealthy families live in elegant mansions interspersed throughout the Yankee quarters of the town, where their near proximity is pleasantly made known by the exquisite music which often comes to you on the zephyrs of a summer evening.

It would seem that the architects here, uncontrolled by Grecian simplicity, vie with each other in tawdry ornament and finish, to the extent often of putting "Jack on the gentleman"; but the U. S. customhouse is a noble exception; it is, like the Newhall palace and a few other structures, of finely cut white magnesian limestone, from Illinois, — an improvement on the ordinary coarse marble of this region. But that which here is most admirable, as truly denoting the good taste of the people, is the small number of fine dwellings that are serried together in blocks. Notwithstanding the high prices per foot of building lots, every house of any pretentions has space around it for carriage way or flowering shrubs, with its little yard or lawn in front, and trees to shade the broad sidewalk.

Business here feels the effect of the late revulsion, but the same causes have reduced the prices of building materials one-half, and labor in proportion, and more dwellings to rent are now being built here than ever. Thus far, house rent has been very dear, from the dearness of building materials and mechanical labor, which checked building; but rents and municipal taxation are now coming down to a level with other values.

One great clog to the prosperity of the west generally, and farmers in particular, is the extreme high rates of freight and fare charged by these bankrupt railroads. While it costs the farmer twelve cents a bushel to send his wheat here, it is taken from here to Buffalo, on a $50,000 propellor, for three cents. Lumber is now sold here at $6 the 1000 feet; yet the farmer, to take it 70 miles to his prairie farm, must pay railroad freight $3,50 for the same. True, these roads were built by very dear borrowing, and reckless mismanagement and stealing has overwhelmed them; but by what rule of ethics should the public be victimized to make up the loss?

As two railroads are now finished to the upper Mississippi, this is fast becoming a great shipping port; even the wheat from the Janesville region southwest now comes here for sale and shipment, as it is ninety miles of exposed lake navigation nearer Buffalo from this place than from Chicago.

The soil at this place is indicated by the character of the famed Milwaukee brick. On the high, long extended lake bluff and its inland declension, the clay lies in great depth; and such calcareous clay this deponent never saw elsewhere; when attempted to be ameliorated with sand or gravel, which also abounds in near vicinity, it becomes indurated in dry weather, so as to resemble calciferous slate, that no hoe can penetrate, or weed be torn from without leaving its roots behind. Continued doses of coarse vegetable matter, tan bark, etc., with draining, much working, and the aid of frost, can only fit such a soil for garden purposes. But in proof of the organic fertility of this brickey clay, grass grows on it as well as wheat; and the few graceful old oaks that are sometimes "spared," as if they had a fee simple in the dooryard here,

now bear witness to the strength of the primitive soil.

Pork Fatting in Indiana. — Your correspondent G. W. Massey asks for advice as to the cheapest way of fatting hogs. In reply, I would say, reverse the present practice of throwing corn to them in the cold wet mud of an open railed pen. It is bad enough for the naughty distillers to wash their hog pens into the running stream, but for a farmer to do it is suicidal. I once heard a Rhode Island farmer say that each of his hogs, at a year old, had made him seven dollars worth of rich composted manure. G. W. M.'s Pike county farmers have yet to learn that their title to the soil's wealth is not indefeasible.

The philosophy of feeding cooked food to fatting animals is, that they digest it better and get all the nutriment that otherwise would have passed off with the fœces. In wintering animals a little raw corn may be fed profitably, particularly to sheep, with other food; but if you want to put on fat, the grain should be ground and boiled, or steamed, or boiled without grinding; but as a change of food is desirable, a little raw corn may sometimes be fed in default of a change of nutriment more desirable to the animal. S. W.

Milwaukee, August 15, 1858.

RYE AND ITS CULTURE.

The losses sustained from the midge at its first advent in the wheat crop of this section, induced us to give some attention to the culture of rye, as well as some examination into its history and the use and estimation which it has where it is most extensively cultivated. We find it a prominent crop in the Eastern States — in amount superior to wheat and next to Indian corn — and consumed largely as a breadstuff. Among the Pennsylvania Dutch it receives considerable attention, and is extensively cultivated on the light lands of Ohio, Michigan, and other Western States. In some localities in the latter section, however, one object of its growth is the supply of winter pasture, as it may be fed down for some weeks in spring, with very little diminution in the product of grain, and affords a succulent green food at a time when it can not be procured from other sources.

The soil on which rye has succeeded best, in our experience, is a rich, sandy loam — the strong clays in which wheat delights seldom producing good crops of this grain. Wet lands are not congenial to rye — a warm, light sand, on which most other grains would yield light returns, will do better in this crop. Good corn land will produce good rye, and it is often sown after this crop, the last of September, and also on sward land of the proper character.

Probably the best preparation is a thoroughly tilled summer-fallow. Rye likes a deep, mellow soil, and one enriched by manure; and among the fertilizers which may be employed, a compost of muck and ashes would be very suitable both to the requirements of the soil and the crop. If sown on stubble, manure should be given — we find that after barley, without manure, though the soil and culture were both good, the crop does not fill well, the yield being much less than the growth of straw indicated.

The middle of the present month (September) is the proper time for sowing, and from one and a half to three bushels of seed are given per acre. The earlier it is sown, the more it tillers and spreads, and hence the smaller quantity will be enough at this season. If the growth is luxurious, it may be fed off both fall and spring; but where one relies on this source of pasturage, the greater amount of seed should be sown, and the better character of land given.

Harvesting should take place before the rye is fully ripe, as, with wheat, the grain is heavier and the product of flour of greater amount and value; beside, there is considerable loss from shelling in the field, if delayed too long. Careful handling is necessary; we have known large wastage when drawn very ripe and dry by careless hands.

The average yield may be put at twenty bushels per acre, though crops of thirty-five are occasionally produced. Very often, however, fifteen bushels is as much as a very heavy growth of straw will give, especially on land not well adapted to the crop from too great an amount of moisture.

Rye bread is esteemed a wholesome and palatable food, although those accustomed to wheat bread find it quite a different article. When mixed with Indian meal and baked a long time, it makes the famous "rye and Indian" so well known in New England, and which we have never eaten in perfection elsewhere. The flour should not be ground too fine or closely bolted, and it is said that an aroma will be retained which is peculiar to this grain, and which renders it more palatable. It has a larger per-centage of sugar than wheat bread, and does not as soon become hard and dry after baking. We have noticed recently that rye flour is used by an extensive bee-keeper in Ohio for feeding his stock in spring, and that it answers in this way a valuable purpose.

Rye is pronounced by competent authority a most valuable grain for feeding horses, cattle, and swine. For horses at hard work, and requiring hearty food, the Pennsylvania farmers give both grain and straw, the former coarsely ground and the latter cut, and both mixed together, with good results. Less hay is eaten, and no other grain is required. Corn is sometimes ground with the rye, making a superior food for improving the coat as well as keeping up the strength of the horse. The same provender is valuable for fattening cattle. As early feed for swine, before the corn crop matures, we have used rye with the best success.

Rye straw is not well relished by stock, yet in some sections its market value makes it the best part of the crop. In Boston it is said that the price averages $15 per ton, though it is chiefly used for the bedding of horses. The greatest demand for it in this section is among nurserymen, for packing trees sent long distances, and this is a want soon supplied. We have found it excellent for binding corn, for littering stables, and to add to the stock of manure. J. H. B.

Niagara Co., N. Y., August, 1858.

Contrary to the general opinion, a correspondent of the *Country Gentleman* says that his cattle prefer hay made from grass cut when it is ripe to that cut green, although the early cut hay was "cut, cured, and housed in dry weather, and in the best possible condition."

STACKING AND FEEDING OUT STRAW.

Straw should be stacked in a tight pen, for if you suffer your cattle to eat out of an open pen, the master cattle will guard the stock continually, and the others will have to stay away. This is not all; your cattle will have chaff in their eyes half of the time. The best way is to keep your cattle away from the straw until you feed them, then give all a chance alike. If you make a pen high enough, and tight, they can not reach. Then cover the stack with some kind of roof, if possible. One of our old fashioned barracks is worth the time and trouble of building, and I am sorry to see them going out of fashion. Build one or two, reader, on the portable plan, and see if your money is not well invested. Put in your straw as soon as threshed. When it is time to begin to fodder, drive your wagon or sled alongside and load up, then drive out as far as you please and begin to throw off; let the team keep traveling, and you will scatter the straw sufficiently to let every one have an equal chance.

I find from experience and observation, that bunks or racks are poor things to feed straw in; for cattle want to pick out the best, or cull over, and if the straw is in a bunk they will throw it all out under foot, and then tread it down. If it is scattered as I have directed, and not put in racks, there is no danger of chaff in the eyes.

When you feed straw, feed nothing more; for if you feed hay once a day and straw the rest of the time, you will miss calculations certain, if your straw is not as good or superior to your hay. If one kind of fodder is the best, they know it full as well as you, and will wait for the best and tread the poorest under foot. A. L. S.—*Nichols, N. Y.*

This is a subject in which every farmer is interested, who raises large crops of wheat or other small grains, and wishes to keep his straw good and free from moulding. Procure large rails, ten feet long, and build four pens in a square, ten feet apart, and high enough for stock to walk under; then take rails long enough to reach from one pen to the other, covering the space between the pens and the two pens next to the threshing machine,—leaving two rails off the pens next the machine, for the purpose of throwing in all the chaff; when filled, replace the rails. The straw is now thrown on top of the pens and in those opposite the machine, and in those the straw should be well trodden down, so that the stack may not settle sidewise. For a large crop there can be more pens built opposite the machine, leaving ten feet between and covering the space between with rails, and then stack the straw on the entire lot of pens. This makes a good shelter for stock all winter, as it leaves a space of ten feet each way under the stack, and gives cattle a chance to get away from any that are cross.

The advantages of this over stacking on the ground, are, that the straw keeps better and forms a good shelter for stock; stock will not pull down more than they will eat; and it keeps all the chaff dry. The pens must be made of large rails, so that the stock can pull the chaff and straw through the spaces; and when the chaff is all eaten as far as the stock can get it, take a hook, run it into the straw, and with a good jerk you can bring the straw close to the side of the pen; and in time the straw will begin to fall in from the top, and it is then not much trouble, as it keeps falling as fast as the stock want it. If farmers will try this plan once, and see the benefit of good shelter for their stock, they will always try the straw shelter,—at least those that have no other. Henry Sater.—*Harrisburg, Ind.*

If one has but little straw, it is well enough to save and feed it out in the coldest weather; but if a person has an abundance of it, *put it into a rick*, keep the middle a little the highest, let it be well rounded on the top and twelve feet high after it is settled. Swing across the top of it an abundance of long and heavy brush. Sprinkle a little brine, occasionally, around and near the bottom of it—enough for the good of the stock. They will lick up the straw down to the ground where it is brined,—the stack will be too high for the cattle to climb over,—the little waste straw will afford bedding for them,—the stack will be a fine shelter for them in storms, and save the necessity of building one of wood. There is no better way of turning straw to the best possible account. Cattle thus provided for, with a little hay, fodder, and corn, may be presented in as good condition, the first of May, as they were the preceding November. Every farmer should have stock enough about, thus to consume his straw. B. C. W.—*Metamora, Ill.*

KEEPING CATTLE IN SHEDS AND STABLES THE WHOLE YEAR.

Editors Genesee Farmer:—In the July number of your valuable paper is an article from the pen of "P. B.," wherein he says, it is more profitable to keep stock stabled or yarded, the whole year (on old improved farms), than to let them run in pasture. I did not expect to find arguments running in this direction on this subject; in fact, "P. B.'s" declaration is decidedly in opposition to many facts gathered from observation and experience in this matter. This is a question of vast importance to farmers; and as one side has been discussed at some length, perhaps a little said on the other side might be of some benefit to your numerous readers.

"I think it is known by "P. B.," and all other rational farmers, that stock, when closely confined, are much more liable to disease than when they roam leisurely about the fields; in fact, confinement and filth are the germs of many diseases, for it is difficult to keep stock clean and healthy when stabled or yarded closely all the time. The effluvia that arises all the time from the droppings of stock, destroys their appetite by spells, and causes much of their food to be left unconsumed. Stock, like people, love liberty; and when you deprive them of that liberty, they are generally uneasy and dissatisfied. Exercise promotes good health as well in stock as in people, and justice demands that they should have it for their own health and their owner's profit.

I think "P. B." has not kept a close account of the time spent in feeding a large stock, which ought to be three times a day all the time, rain or shine. Through December, January, February, and March, it is as convenient for the farmer to feed his stock as any other time. In the remaining

two-thirds of the year, the time "P. B." would spend in feeding his stock would be the most valuable part of the day to labor, both for himself and his teams. I have reference to the cool bracing air at morn and toward the close of the day.

"P. B." is right when he says the manure is left where it can be more readily procured where stock is yarded or stabled; but it will be remembered that if the yard is not right in its construction, much of the manure is lost by draining, leaching, evaporation, etc.

"P. B." says one-third the ground will furnish green food for the stock, where the other two-thirds would be required if left to pasture. One-third of a field, if prepared and managed correctly, would produce green food that would last as long as the other two-thirds in pasture; and these are the reasons: The stock, if turned into thick-growing food, would tread under foot full one-half that is growing on the ground, where it is not lost, by any means, or the field robbed of its fertility.

I am satisfied that the time spent in preparing the ground for a piece of corn, either by planting or sowing, and the cutting and feeding out, together with the loss by sickness or disease of stock, would amount to more than would be gained by stabling or yarding on three-fourths of the farms in this State. A. L. SMITH.

Nichols, Tioga Co., N. Y., August, 1858.

"WE PLOW TOO MUCH."

"The true maxim is not to 'cultivate one acre more,' but *enrich one acre more*, so that it will produce the crop given by two acres heretofore." So says your monthly "Itemizer," speaking of permanent grass land. It is true of most soil culture, at least in this section of the country.

In regard to "Grass Culture," the necessity for plowing and re-seeding every few years need not occur under proper management. Especially is this the case with rather moist lands, naturally suited to grass. Upland, suitable for grain, would, of course, be seeded in a proper rotation or succession of crops, to be plowed up again in a few years.

In New England, the practice is rapidly gaining ground, of keeping moist lands constantly in grass, and sustaining them in a productive state by frequent (triennial, at least,) top-dressings of manure. A correspondent of the *New England Farmer* says, "I know of fields of twenty acres or more, that can be relied upon for two tons to the acre at the first cutting, and one at the second, the sod of which has not been started for the last twenty years." It is hardly probable that meadows would ever run out, if judiciously top-dressed after mowing, and occasionally allowed to ripen seed, or resown at times with the manure, even in hundreds of years Manure for this purpose should be composted, and the best time of applying it is undoubtedly in autumn.

"We plow too much" when we attempt the cultivation of larger fields than we can properly fertilize. It is poor policy to plow and plant five acres for half a crop, when the same labor and expense applied to two acres would produce as much grain. Let us, as "B." says, "grow more grass, keep more stock, and plow less but more thoroughly," and we shall soon be able to plow larger fields, grow larger crops, and bring our whole farms into a more productive state.

One great reason of the failure of the wheat crop, was, in our opinion, the passion for much plowing among farmers. A "great summer-fallow" showed well for enterprise—much more than a great many acres of late, rusty, midge-eaten wheat did—a folly we have been fairly *scourged* out of the last few years. R. F.

TO PREVENT A DITCH CAVING IN SANDY LAND.

Editors Genesee Farmer:—In reply to the inquiries of Mr. J. R. Dill, of Eastern Shore, Maryland, in the June number. Let him put in the bottom of his ditch triangles made of good heart of oak, formed by notching together pieces of two inch stuff a foot or more long, and six inches wide. Set these in the ditch six or eight feet apart, with the apex of the triangle up; then cover with good heart stuff boards, twelve, sixteen, six or eight feet long, as is convenient. This makes a trunk that can not cave. Then put in large, long brush, filling with these two or three feet, more or less; lastly, cover with reversed sods, straw or hay, and then fill in with soil. Or, lay rails in the bottom of the ditch, as far apart as necessary to carry all the water. Split pieces of stuff from oak blocks sawed two feet long; put one of these pieces *under* the *ends* of the rails or pieces you lay in the bottom, then cover with the split pieces, lapping the lower edge over the upper edge of each piece, and cover as deep as you please with sod and soil over all. Either of these ways will make a good durable underdrain, and the deeper it is laid the better, to a reasonable depth.

Rochester, Ind., July, 1858. CHAS. BRACKETT.

African Cattle.—The Rev. Mr. Adamson, Secretary of the Geographical Society, recently gave the New York Farmers' Club a discourse upon the oxen of Southern Africa. A marked feature of them is large horns, heavy fore quarters, with a hump on the shoulders. They are generally used fourteen oxen in a team, hitched to ponderous wagons. The general extent of a farm is five or six thousand acres, and the people don't think a family can be supported very well upon less land than that. The grain raised is wheat of a good quality, and it is common to sow twenty or thirty acres, and to use that soil until it fails, and then plow up a new spot. The same practice is a little too common in this country. The cattle are generally very stubborn and hard to train. They are tall and big boned, and travel with great speed. The sheep kept there are of the broad-tailed sort, the tail sometimes growing to a mass of fat of ten or twelve pounds, which is in some measure a substitute for butter with the people.

Four Calves in Eleven Months.—As evidence to your readers that the cows of this section are doing what they can to obey the injunction, "multiply and replenish the earth," I need only to give you the following instance of a neighbor's cow that has brought *four* calves in eleven months, that is, two in the spring of 1857 and two in the spring of 1858, but all within eleven months. R. H.—*Mahoning, Pa.*, 1858.

"HOED CROPS—CLEAN CULTURE."

A good word was spoken on this subject, in your July number. May we add a few further inducements to thorough work in the matter? "The work of *hoeing*, like that of acquiring knowledge," says a contemporary writer, "is never finished until the crop is matured and nearly ready for harvest." This is certainly true, as long as there are weeds to destroy, or hard clods or crust to make mellow.

Haying and harvest are over for this year, at least, with our grain crops. We can do no more for them; but our hoed crops are yet growing, and growing luxuriantly, in most cases, though rather backward from late planting. Can we do anything to help on their maturity? But little, it is true, but that little will have its reward. There never was a season, so late, so unfavorable, that weeds would not grow, and grow well. There never was a year so propitious that *work* was not needed to destroy them—to prevent their injuring our crops. And there is yet work of the kind to be done in our corn fields, among our potatoes and other root crops.

Let us, then, if it is a possible thing to make leisure for it, pull up these weeds, and let the corn have the field and the rest of the season to itself. If we do so, we shall certainly have cleaner fields hereafter, and a hundred to one if every day's work is not repaid by two or three bushels of corn extra. Who ever knew an ungrateful corn field? (as we once asked in another place.) Wheat may go to the—weevil, and oats or barley come short of their proper stature and product, but who ever knew our Native American cereal to be decently treated and fail to show a proper appreciation of the favor? Give it, then, another lift, good friends.

Potatoes should not be allowed to become weedy; but if here and there a specimen pig-weed has escaped the hoe, root it out—do not suffer it to seed the soil for rods around it. If we would now resolve to wage a war of extermination against all useless vegetation, we should find business for every spare hour in the present, and a farm much easier tilled and more productive in the future. J. H. B.

MULES vs. HORSES.

In traversing a desert, where there is much toil and scanty feed, the mule is preferable. He may be preferred, also, where those who perform the labor have no choice about the kind of animals that they use; will sometimes be preferred when some distemper is liable to rage among horses; individuals who are unable to be at the expense of keeping horses may now and then prefer them, as a man prefers a blind horse to one that has eyes, because his purse will permit him to obtain the former but not the latter; and sometimes a queer genius will harness a pair of them to his carriage, because they are something odd, and thus produce among some, who are ambitious of notoriety, a rage for mules, till a few of the inexperienced have had an opportunity of becoming acquainted with their virtues: but in other cases, in an enlightened and fruitful country, the horse will usually receive the preference. There are two reasons for this preferment.

1. His *beauty*. The horse is one of the handsomest objects that adorn our earth. He is surpassingly beautiful, graceful, and majestic, both in his form and in his movements; while the ugliness of the mule is almost painful to the view. So long as man is an admirer of smiling flowers, graceful trees, fine carriages, and beautiful architecture, and will make sacrifices to secure them, so long he must give the horse the preference, even if there was a deficiency in every other excellence.

2. His *docility*. The horse has great endurance; though in this he is not equal to the mule. But he is his equal in fleetness, his superior in spirit and courage, and greatly excedes him in docility. The latter is far more prone to kick, is much more inclined to stubborn willfulness, and in every way is less tractable and trusty; and as long as impatient man prefers machinery, that will operate without giving him trouble, so long he will prefer the former animal to the latter. The latter may be much less liable to disease, and attain to a much greater age, notwithstanding. Man prefers to have his possessions in quietness and safety for a shorter period, rather than to enjoy them longer in turmoil and insecurity. It will therefore pay better to raise horses instead of mules, both for farm purposes and for market. B. C. W.

Metamora, Illinois, 1858.

PRESERVING CHEESE FROM INJURY BY FLIES.

As soon as the cheese comes from the press, remove it to a dark room that has been fumigated with a tea-spoonful of brimstone or sulphur. As soon as it is dried off a little on the outside, give it a covering of cotton cloth entirely over its whole surface. This cloth should first be dipped in a solution of Gum Arabic, then apply it after it is dry. If you are yet a little doubtful, rub the outside over with the Gum Arabic water; this will settle the matter, if you keep your room dark. If you think there are flies about the room, fumigate as many times as you please. You may borrow some trouble about the smell or taste of the brimstone; but you will realize no damage from this cause, for I am in the habit of smoking my hams with brimstone, and then hang them in my garret for summer or fall use, and you could not guess what they were smoked with. If you have no Gum Arabic, then make a cotton bag large enough to hold the cheese, dip it in a solution of salt and water and dry it; repeat this dipping and drying process three times, then put in your cheese and tie up the sack or bag tight, and lay away in your dry dark room. A. L. Smith.—*Nichols, N. Y.*

New Mediterranean Wheat.—As there seems to be much complaint in Western New York, as well as many other places, of the midge or field weevil destroying the wheat, I thought it might be well to recommend a trial of the new or red Mediterranean, a variety which has succeeded in our county for two or three years much better than the old Mediterranean, or any other variety. It ripens early, makes a fine crop, and in two fields I had this season I did not see any of the weevil, while a variety of white wheat by the side of it was very much injured by them. The straw and chaff of this new Mediterranean wheat has a much redder appearance than the old variety, while the grain is much the same, and the flour fully equal. Thos. Wood.—*Penningtonville, Pa.*

FAILURE OF FRUIT CROPS.

We observe by the *Genesee Farmer* that the fruit crops of Western New York are as short as those of Ohio. The peach trees suffer from the curl in the same degree as ours, and cherries and plums seem also diseased. We cannot, however, endorse the opinion that the coldness of the soil and the high temperature of the air are the cause of the curl, and that thorough drainage would prevent the occurrence of this disease, for we have a number of peach trees growing in a very warm well-drained soil, with no other crop beneath them, that are irrecoverably injured. This is the case in and around Cleveland, where the soil is naturally warm and well-drained. Drainage is excellent for trees, but we doubt if it will prevent the curl.—*Ohio Farmer.*

We did not say that "thorough drainage would *prevent* the occurrence" of the curl in peaches. We distinctly stated that "perhaps nothing can be done to entirely *prevent* such losses; but much may be done to mitigate the injurious effects of adverse seasons." And again: "The best means that could be employed might have been found ineffectual." And yet again: "While, therefore, the atmospheric changes are beyond the control of the cultivator, he may do much to *mitigate* their injurious effects, by raising the temperature of the soil — and this he is enabled to do by thorough underdraining, and keeping the land loose and free from weeds, grass, &c." It is one thing to "prevent" and another to "*mitigate*" the injurious effects of a disease. That the primary cause of the curl in peaches is the *low temperature of the soil*, we have little doubt. The case mentioned by the *Ohio Farmer* does not disprove this. However "naturally warm and well-drained" the soil may be, the warm weather in the spring may come on so suddenly that the soil may remain quite cold while the atmosphere is very hot, and thus the equilibrium between the leaves and the roots be destroyed, and an unhealthy growth induced, which subsequent cold weather may injure. This was the case the present season. Now if the "low temperature of the soil" is the primary cause of the curl, it is certain that thorough underdraining will increase the temperature of the soil some degrees, and consequently *lessen* the evil; — that it will "*prevent*" it we do not assert.

That the curl is not an inherent disease is evident from the fact that peach trees growing in the greenhouse of S. Mathews, Esq., near this city, the present season, were exceedingly healthy, and produced a very fine crop. No signs of curl were apparent, while trees exposed to the sudden changes of temperature in the open grounds were affected worse than in any former year.

Every fact that has come to our knowledge indicates that the chief cause of the disease is cold — either severe weather in winter, or sudden changes of temperature in the spring. Last winter was unusually mild, and yet the peach trees this season suffered more than usual. The sudden changes of temperature in the spring, therefore, combined with the immature growth of last season, are probably the principal causes of this result. If this is so, the method of cultivation we have recommended, by increasing the health and vigor of the tree, by promoting the better maturity of the wood, and by increasing the temperature of the soil and consequently of the sap absorbed — will enable the trees to withstand, with less injury, the severe cold of winter and the sudden changes of temperature of the air in spring, and thus lessen the chances of injury from adverse seasons and other causes beyond our control.

The soil around Cleveland, we know from a personal examination, appears "naturally warm and well-drained." At the same time, it is not at all improbable that in wet seasons of the year it contains an excess of stagnant water. Such is often the case with the lightest and the highest land. This is a very unpopular doctrine, and few will believe it, but it is true nevertheless.

WEEPING OR DROOPING TREES.

That there is a rapidly increasing taste for ornamental planting, is indicated by the annually increasing demand for ornamental trees and shrubs. We fear, however, that it is in a great measure confined to the residents of our cities and villages. Few of even our best and most intelligent farmers bestow more than a passing thought on this subject, while the great mass of farmers neglect it altogether. A very little attention to ornamental planting would in a few years change our gaunt and glaring farm houses into home-like and attractive residences. It has always been the aim of the *Genesee Farmer* to infuse a taste for ornamental planting among our rural population. We can do this in no better way than by giving an occasional illustration of such trees as are worthy of more attention than they at present receive.

Weeping or Drooping trees have within a few years past received more than ordinary attention. There is even in some instances a disposition to plant

them too freely. Though elegant, graceful, and beautiful, they communicate, when too numerous, a mournful aspect to the landscape. On this account they are peculiarly appropriate for cemeteries. But we do not want to give our dwellings the appearance of mausoleums. No grounds can be perfect without a few weeping trees, but they must be judiciously arranged and not too numerous.

THE EUROPEAN WEEPING ASH.

The European Weeping Ash—(*Fraxinus excelsior pendula*)—is one of the oldest and most widely disseminated trees of this character. Grafted on a common Ash, eight to twelve feet from the ground, it makes a tree of great beauty. This variety of the Ash was discovered in a field in Cambridgeshire, England, about the middle of the last century. From this grafts were taken, and the variety was rapidly disseminated over Europe and America. In the environs of London there are many very fine specimens of this tree, generally from 15 to 25 feet high, with branches drooping to the ground, and covering a space of from twenty to thirty feet in diameter, or upwards. There is a specimen in the garden of a public house in Pentonville, of which the branches are trained on horizontal trellises, at the height of about seven feet from the ground, over twenty-eight seats and fourteen tables, covering a space thirty-six feet long by twenty-one feet wide!

The Ash will grow in very barren soils, and in low mucky situations, where, Woodward says, "the roots act as underdrains, and render the ground about them firm and hard." Lang, an excellent authority, however, states that "it is found in the highest perfection on dry loamy soils. On such it grows spontaneously. In moist, but not wet soils, it grows fast but soon sinks." It will grow freely on most soils, if the situation be tolerably good, except on retentive clays.

"The Ash asks not a depth of fruitful mould,
But, like frugality, on little means
It thrives; and high o'er creviced ruins spreads
Its ample shade, or on the naked rock,
That nods in air, with graceful limbs depends."

The Weeping Sophora—(*Sophora Japonica pendula.*) This is a remarkable variety of the Japanese Sophora. It is a leguminous tree, and the foliage closely resembles the laburnum and locust. The shoots are quite pendulous. When grafted near the ground, the shoots run along the surface, like those of a trailing plant, to a very great extent from the main stem—extending, in good soil, six or eight feet in one season. Grafted on tall stocks of the Japan Sophora, it sends downward a head of long, slender, green shoots, and forms one of the

THE WEEPING SOPHORA.

most ornamental of pendulous trees, both in summer and winter. Our engraving is taken from a specimen growing in Knight's Exotic Nursery, Chelsea, England. It is none too hardy here at Rochester, but succeeds well when planted on good, *dry* soil, where its shoots will ripen perfectly. It is one of the most beautiful of weeping trees, and should be extensively introduced wherever it succeeds.

Formerly our collection of weeping trees was rather meagre, but our nurserymen now propagate five or six varieties of weeping ash, and several of willow, besides weeping oaks, elms, poplars, beech, birch, mountain ash, larch, linden, laburnum, sophora, thorns, and many others.

ADORNING AND BEAUTIFYING FARMERS' HOMES.

Our offer of a prize for the best essay in answer to the question, "Should Farmers adorn and beautify their Homes and Farms before they become wealthy? and if so, how may it be done in the easiest manner?" has called out answers from a great number of esteemed correspondents, and we believe a few extracts from some of them will prove interesting to our readers:

Martin S. Gregg, of Fayetteville, Arkansas, writes that he is in favor of adorning the house before the farmer becomes wealthy. He says:

"I am poor, and any one can do as I have done. I have taken from our native forests some fine trees and flowers, which cost me nothing but a little labor. To these I added a few imported trees and flowers. *And now my farm will command twice as much money as it would without these adornments.*"

"To neglect home attractions, to forego internal conveniences, and those external adornments which a just appreciation of the beautiful would dictate, until our pockets are lined with superfluous wealth, and many years and cares are weighing heavily upon us, is like refusing to eat until our granary and larder are overflowing with husbanded stores, and our wasted frames admonish us of our imprudence.

"With the many, a reasonable degree of comfort is accounted as everything, and beauty nothing. Such persons have no idea of the potency of influences. The tastes and characters of our children, and the subsequent happiness consequent upon the exercise of those tastes and the development of those characters, are greatly dependent upon the externals and internals of the home of their childhood."

"In the construction of their homes, farmers are apt to act with too little premeditation and thought. He who would build him a home, can never invest money so well as to purchase and study some reliable work on rural architecture. He will there learn that even a cheap house can be so constructed as to combine internal convenience of arrangement with exterior beauty and attractiveness. He who would adorn his grounds and beautify his home, should read some work on landscape gardening, and regularly and continuously some good agricultural and horticultural journal. Thus he will place himself in communion with persons of cultivated and refined tastes, and thereby be enabled to act with more judgment, and with far more satisfactory results. Each year should add new attractions to the surroundings of home, developing new beauties: thus our children will grow up with a strong attachment to the homes of their childhood.

"This work of beautifying our homes is easiest done, where the work commences with the commencement of agricultural improvement, and is conducted with good taste and an enlightened judgment. O. C. G.—*Frewsbury, N. Y.*

"If the farmer has sons and daughters, and wishes them to grow up farmers and farmers' wives—loving himself, their own old homestead, and a farmer's life—there must be something more than mere out-door labor, and the freedom of healthy exercise, to engage their hearts; the farm dwelling and all its appendages must be pleasant and attractive—a place that they can ever remember and love, not only as the home of their youth, but as a beautiful place. If this is done constantly while they are growing up, he will not so often have occasion to lament that his sons are dissatisfied with the occupation of their father, and seek something more congenial."

"A good farm is worth beautifying, and should appear as well as it really is; but it is in very bad taste to see the extorior of anything nicer than the interior: it reminds one of the dandy parading Broadway. Let the house be a rural home, appropriate to its position, surrounded with shade trees, for the two-fold purpose of greatly adding to the comfort of its occupants and the beauty of the place. Spare for a grove on the highway, those trees most sound and thrifty, and one here and there over the pasture lands; it will give the farm a more natural appearance, and it will not present so barren an aspect; and the panting ox and sheep, reclining beneath its refreshing shade, will return a look of gratitude. Fences should be constructed with a view first to permanency, and their adaptedness to the wants of the field, and then built neatly as well as substantially,—strait as possible, every board of its proper size and in its proper place,—the posts perpendicular, and not one peering over its fellows. The farmer need not be afraid of paint; it gives durability as well as beauty to his buildings and farm implements. It is an agreeable sight, as well as economy, to have "a place for everything and everything in its place," and a bad sign to find the farming utensils scattered over the farm where last used. In a barn, utility, convenience, and adaptation to the wants of domestic animals, are essential.

"Let the exterior of the dwelling look as well as the interior, for we lose nothing by endeavoring to procure the favor of others. Adorn the inside with a library of works, whether treating of agriculture, science, art or religion, the tendency of which is to lift a man up, intellectually and morally, and place him where he was designed to be, 'a little lower than the angels.'

"There are, we might say in truth, a thousand ways in which a farmer's home may be beautified; but it is a fact that everything looks well, that is appropriate to its peculiar place and work. Fine

horses, cattle and sheep—i. e., in good condition—do most towards adorning a farmer's barn-yard; fine crops the field; a fine farmer and wife the whole. Such a farmer, if he ever has the good fortune to be called wealthy, will be so in a three-fold sense — in possessions, in mind, and in heart." S. E. P.

"SHOULD farmers adorn and beautify their farms and homes before they become wealthy?" Yes. There are many reasons for answering thus. Many of them may never become — in the popular sense of the term — wealthy; and should they forego the pleasure, all their lives, of having a pleasant home? We live and labor too much as though riches were the height of enjoyment, when in fact it is not so, —the choicest blessings are free to all. It seems hardly possible for a man to be truly wealthy without a pleasant home. "Delays are dangerous." Let a farmer turn his whole attention to becoming wealthy, making it the all-engrossing topic, bending everything to accomplish it, and training his family to that as the matter of greatest moment in this world, — teaching them that first of all they must become rich, and then they may plant trees and flowers, — who will tell him when he is rich? In all probability his family — those who should have been taught to sympathize with nature — will have grown up selfish and cold-hearted, and been scattered, before the man will have found out that he is able to make his home an attractive spot. How often have we seen a costly mansion, with nothing cheerful or inviting around it,—nothing to tell us that *one* of its inmates has a single pulsation in unison with the beautiful and lovely things of nature! And we have seen the cabin, with that tasteful arrangement around it which has led us to feel, that although its inmates were not rich in gold and silver, they had that which was far better —gentle dispositions and cultivated and refined sensibilities. It seems to me that no child of crime could proceed from a cheerful and beautiful home.

"How may it be done in the easiest manner?" "Order is nature's first law." Have regular fields and tidy fences. Build nothing but what can be finished in a neat and substantial manner; a small house in good repair is better and prettier than a large one going to ruin. Take from the woods the sugar maple, the ash, the hickory and butternut; plant small groves in the pasture and an occasional tree in the meadow, and a row on the street. Your neighbors have flowers of various kinds, and will be glad to give or exchange. *Observe.* Our tastes are not all alike; it is a good thing they are not, for thus we have variety; we must each set about it and cultivate our own. ONE OF THE BOYS.—*Arrowsmith's, Defiance Co., Ohio.*

"THE planting of ornamental trees should be attended to among the first operations of adorning the home. Of these, evergreens deserve the first place. Their fresh green foliage during winter, when all other vegetation lies dormant, gives them the preference over all other ornamental trees. But for variety, deciduous trees should also be planted. Most kinds of fruit trees are good for ornamental planting, especially when dwarfed. There are two seasons at which they are particularly ornamental, namely, when in bloom and when ripening their loap of fruit. In addition to this, their profitableness will soon repay the cultivator for his care and expense. But every one must be his own judge in the kinds of trees he selects. A variety of small flowering shrubs, such as roses, snow-drops, &c., is another necessary ingredient in beautifying a home. Again: the spot designed for a lawn or yard should be carefully cleared of all rubbish, and as smooth a surface as possible imparted to it, and a good coat of green grass secured. Gardening should also be attended to with neatness and care.

"These, and nearly all other operations essentially necessary to ornamenting the home, can be done with very little cost, during the spare moments which farmers can have, if they properly economize their time. Beautifying and adorning the farm is rather a more extensive task, but with care and perseverance may be easily accomplished. Next to the beautiful homestead, the orchard is the greatest ornament to, as well as the most profitable part of the farm. Probably the easiest way to beautify a farm, is to have the various kinds of fruit trees planted and arranged with neatness; shade trees and groves planted in such places as they are needed, and where they will present an attractive appearance; to lay off the fields in convenient, regular and symmetrical forms; keep the fences, &c., in a good state of repair; keep down the growth of bushes and briers; keep the fields not occupied with grain, in clover or some other green crop, and let neatness and order have pretty full sway. W. H. M.—*Mahoning, Pa.*

PROBABLY "the easiest manner" in which a farmer may "adorn and beautify" his home and farm, is by the judicious and *skillful* planting of trees, vines, and shrubbery. I might qualify by adding, either, or both useful and ornamental: but to my mind, that which is truly beautiful is always useful, although its utility may not be measured by dollars and cents."

"I ANSWER the first question decidedly in the affirmative, and *now* is the time to do it. How? I answer, by setting out trees. Keep your house well boarded and shingled, and painted a dark brown or chocolate color, as being the cheapest and most durable. Keep your barn tight, warm, well lighted with windows, and don't forget to have ventilating chimneys reaching from each separate stable out at the top of the barn. Wash your barns and sheds with blue lime, adding some brown pigment to correspond with your house. Then take the extra expense that German lead would cost and lay it out in trees. There is nothing so beautiful as a brown colored house seen through a clump of trees. If you cannot get trees any other way, run in debt for them. Apple, pear, plum or maple trees will pay for themselves in a few years, with all the interest on the outlay." H. STEARNS.—*Felchville, Vt.*

"IN locating a house, follow convenience and economy; and still I would in no case put the woodhouse in front, nor the house behind the barn. In building, remember that there are two sides to a house, — the inside for yourself and family, and the outside for other folks; and the Golden Rule does not require you to do *more* for others than you would or can do for yourself. Depend upon it, your friends will admire your inside comforts, rather than your outside show."

BOTH USEFUL AND ORNAMENTAL.

In the American Institute Farmers' Club, recently, Solon Robinson, speaking of the cultivation of small fruits, remarked that he had growing in his yard, as a mere ornament, the Spirea, which blossoms only once a year, and which was useless; while the currant was a handsomer bush, and in addition to ornament, it afforded a wholesome fruit. Another year, if he lived, would root out the Spirea, and put in its place currant bushes. In proof of their superior beauty, he directed attention to several branches of currant bushes laden with delicious fruit, which several members of the Club had brought in as specimens. A section from a cherry currant bush, in particular, was singularly beautiful; the berries being large, of uniform size, and equally distributed over all the branches. They were more inviting than strings of rubies.

Solon Robinson scarce forgave himself when he thought of his unproductive Spirea, which has cumbered the ground that would as freely have bestowed its gifts on plants yielding food for man—even the berries his palate so relished in hot weather. But he promised amendment for next year. Those currants were delicious; so were the gooseberries, which looked like big green plums that grow on trees.

Yes, when it is as easy to cultivate what gives beauty and food too as that which gives only beauty, why not have the useful *and* the ornamental? We rejoiced to hear wisdom speak in that strain.

It is well for those who have plenty of land for both ornamental shrubs and berry bushes, to beautify their homes with a variety of attractions. But if only one can be cultivated, by every consideration let that one be such as yields food for man, especially as such food has no substitute.

Some kinds of the small fruits should grow in every yard where there is a spot large enough to plant a bush.—*Life Illustrated.*

We are decidedly in favor of growing currants—they are admirably adapted to our climate, easily grown, very productive, and so useful for a variety of purposes as to be quite indispensable in every household. Their extended cultivation can not be too often recommended, and especially the *proper* cultivation of *good* varieties.

The way to do this, however, is not to urge farmers to dig up their spireas and other ornamental shrubs. We are too utilitarian. We do not sufficiently appreciate the beneficial effect of the beautiful, either on ourselves or our children. Those who take pleasure in ornamenting their homes and keeping neat gardens, will usually be found the most intelligent, the most thorough and the most systematic cultivators. The man who plants potatoes in his front garden, seldom has good stock in his yards or good crops in his fields. He who digs up his spireas to plant currants, will set them out in the corners of his worm fences, and leave them to struggle with the Canada thistles for the mastery. A stranger, seeing our friend Solon's recommendation to dig up the spireas and plant currants, would think the United States the most densely populated country in the world, and that there was not land enough, under the best system of cultivation, to supply the inhabitants with the common necessaries of life.

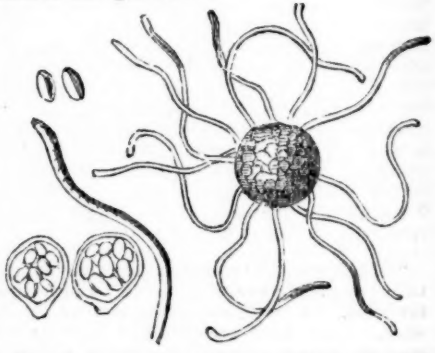
GOOSEBERRY MILDEW.

Prof. Berkley, one of the ablest of cryptogamic botanists, has recently examined the Fungus which attacks the gooseberry in this country, and furnishes a description of it for the London *Gardener's Chronicle*, from which we extract the following:

"It is extremely common in Pennsylvania, extending as high as Canada, and is frequently so virulent as almost to make the culture of smooth varieties of the gooseberry useless, for it is only in very favorable years that any fruit can be obtained. The mycelium is as thick and felt-like as the clothy web (*Erysiphe pannosa*) which so often attacks our roses, and even when it does not entirely kill the fruit renders it uneatable. In some years it is difficult to find a single berry which is not affected.

The parasite is a member of the same section of *Erysiphe* as the rose mildew, and like that belongs to Leveille's genus *Sphærotheca*, characterized not so much by its matted mycelium as by the perithecia containing only a single nearly globular ascus or sac. The primary or *Oidioid* state of the species possesses no distinctive peculiarity. The tips of the threads which spring from the circumference of the perithecia have a brown tint, as indeed sometimes is the case with the whole mass.

Our American friends should take a lesson from the grape mildew in behalf of their gooseberries. As the disease in its first stage like the grape mildew is an *Oidium*, there is every reason to believe that the same treatment will have similar results, and as sulphur (at least sublimed sulphur) properly applied is a sure remedy in the one case, we have no doubt about its efficacy in the other. We have in Great Britain an allied Fungus which attacks gooseberries. It seldom however does any material injury, and never assumes the dense matted form of the *Sphærotheca*.



Our figure represents (1) a perithecium with its processes magnified; (2) the tip of one of these more highly magnified and minutely granulated (this character however is not constant); (3) two of the asci with their contained sporidia highly magnified; and (4) two spores of the plant in the Oidioid state.

FAILURE OF NURSERY TREES.

I HAVE read with much interest the different articles that have appeared in your excellent journal, on the failure of nursery trees. The information which has been elicited will prove useful to many, and no doubt save the life of many a valuable tree. I do not think, however, that the root of these has been reached by any one; at least, I have not observed any opinion offered that I should deem a satisfactory solution of the question, and therefore beg to offer one more.

I may say that I am in the practice of planting thousands of nursery-raised trees every year, of ages varying from three to ten, and received from distances of from twenty to three thousand miles. The reasons given for failure, so far, are, that the trees have been badly lifted, badly packed, badly transported, or badly planted,—the last including improper soil or situation. That trees are liable to be injured by all these is a well known fact; but the very act of lifting a tree is in itself an injury, and death does not necessarily follow. Neither does it necessarily follow that because a tree has been badly lifted, badly packed, a long while on the way, or badly treated generally, it must therefore die. If a tree reaches the owner alive, and it dies afterwards, it is through unskillful management on his part.

If I go to a wood and select say a ten year oak sapling, preserve every branch, and remove it with the greatest care, the chance is 70 per cent. against its living at all, and 90 per cent. against its doing well; but if I lop off all the branches, leaving but the "bare pole," it will grow, and sometimes do well. If cut still more, say to the surface of the ground, you may leave the "stump" to broil in the sun for a week before planting, and even if the stump have, like a "badly lifted nursery tree," all its roots cut off close to the "tree," it will live and throw up good suckers, and make, with some help from art, a good tree. This is called skill, and is founded on the knowledge that the branches are supported by the roots, and that if there be a greater demand on the roots than they are in a condition to supply, the tree must die. It is the province of the buyer to see to this. He can judge when he receives his trees, by a comparison of the roots with the branches, whether the proportion is much out of order, and he can proceed in something like the following numerical mode of reasoning:—First, if a tree is not transplanted it does not die, because the relative positions of roots and branches are not disturbed. Secondly, when transplanted very carefully, and replanted immediately, its growth will yet be checked a little; pruning a little will restore the balance. Thirdly, if taken up with few roots, prune still more. And fourthly, if, in addition to all this, the trees get dry from bad packing or otherwise, prune still more. And thus the planter will see that the rule obtains, that no tree should be transplanted without having its branches pruned to a degree corresponding to the injury to its roots.

This is my own practice, and I rarely lose a tree. There is nothing lost by the operation. On the contrary, trees so pruned will be stouter and larger at the end of the first season's growth, than unpruned ones of the same age. I planted 250 standard pear trees this spring, obtained three hundred miles northeast of me. About 100 of these did not get pruned, through an oversight; though they are all alive, no one would compare them now, either in size or general health, with the pruned ones. At the same time, and from the same place, I obtained a large stock of dwarf pears. After I had them planted and pruned, and they had burst into full leaf, I wanted to plant six in another part of the grounds; they were taken up, still more severely pruned, and to-day I measured shoots of this season's growth three feet long.

I again repeat that if a tree dies, it is in the main the fault of the purchaser, in being unskilled in the "art and mystery" of pruning. A tree may be dug up badly, or replanted badly, but all the long list of "badlys" may be remedied while life remains to work on. CULTIVATOR.

ABOUT SPADING GARDEN BEDS.

HAVING "laid down the shovel," or spade, rather, with which I have been digging up a plot of ground for autumn planting of strawberries, I take up the pen to offer you some suggestions on the subject.

Spading was probably the original method of preparing the ground for the seed — though the implement, no doubt, stood far back of its present convenient character; and the same process, properly performed, now completes that work most thoroughly and perfectly. The *best way* to do it, is a question of some interest to all gardeners.

To commence, take a first spade full from the corner of the plot to be dug up, and place it in any depression of the surface; next invert two spadefuls in the room occupied by the first, and proceed diagonally across the plot. Push the spade in nearly perpendicularly, and in parallel rows, from six to eight inches apart, according to the nature of the soil. Lift out the earth moved carefully, and turn it completely upside down, so that the earth from below may lie on the surface; break all large clods, and remove stones, if any are turned to the light in the operation. Some begin at one side of the piece to dig, and throw the first row taken out to the opposite side of the piece; but this requires more labor, without any special advantages.

Lazy gardeners push in the spade at a large angle, and make wider rows, getting over more surface but doing the work less thoroughly—only half as deep, and leaving a greater portion of the upper surface, exhausted by the previous crop, at or near the top. Or they merely push in the spade, and give it a twist to loosen, without lifting and inverting the soil. It is rather an injury than a benefit to break every clod fine, unless the crop is to be planted at once. It is much better to lie as loose as possible, that air may have better access to the depths of the spaded earth.

Spading, properly performed, turns the soil upside down more completely than any other process, burying the weeds to decay instead of again sprouting to plague the gardener. In light lands, the earth is the richest at the bottom of the cultured soil; the juices of the manure, having leached down the previous season, are brought by the spade again to the surface. The soil is more completely pulverized, and the manure more thoroughly intermixed, than by another implement, and hence better prepared for garden crops. J. H. B.

ORCHARDS AND HOGS.

EDITORS GENESEE FARMER:—Your Niagara correspondent, "B.," notices my article in the July number of the *Farmer*, and does not seem to agree with me about hogs being preferable to sheep running in orchards. All controversies become dry after one or two articles have been written on each side of a question, and indulge me in saying that I have certainly had my share of newspaper controversies, and consequently must be short in what I have got to offer.

1. I have never known a hog to strip the bark from an apple or other tree. Hogs do trees good rather than injury by rubbing against them. Sheep often gnaw trees.

2. Hogs do help the growth of trees, and the fruit is better, in consequence of their industry in rooting among them, and destroying insects, bugs, ant's nests, and all that sort of thing. They are different from a plow; that instrument tears and injures the roots of trees, while the hog does his work innocently, so far as the trees are concerned, and does them (the trees) great good rather than injury. As to encouraging weeds, &c., allow me to say that putting manure on ground will also encourage the growth of weeds; and we hoe corn, &c., to keep down the weeds: so, therefore, cut the weeds down in your orchard, if they are disagreeable. I have no objections to letting calves run in orchards; ours have "the run of the orchard." Weeds, I believe, sometimes grow where sheep run.

3. It is not really taken for granted that orchards are to be wholly used for cow and sheep pastures; we want them for the fruit which we suppose they will produce.

4. Hogs will manure an orchard better than almost any other animal, though sheep are very good on wheat lands. I believe, and have the example of numerous—yes, a large majority of the farmers of the Union, to bear me out in the view which I take, that sheep should not be allowed to run in fruit gardens and orchards. My reasons for this position have already been given, and I have noticed for years that in those orchards where hogs have had a run, the apples were universally the best, the orchards the most productive, and the trees in the most flourishing condition.

Baldwinsville, N. Y., August, 1858. T.

PREVENTION OF THE BORER.

THIS has been a very important point in peach growing, in almost all sections of country, for many years past. We have an account of it as early as before the commencement of the present century, and yet it is making its ravages without a preventive, even in the orchards of some of the better informed and more enterprising fruit-growers, which is very embarrassing to the cultivation of this delicious fruit. The peach-worm or borer, (*Ægeria exitiosa*) which naturalists have so repeatedly described, is of two sexes, remarkably different. "This insect in its perfect state, is a slender, dark blue, four winged moth, somewhat like a wasp. It commences depositing its eggs in the soft and tender bark at the base of the trunk, generally from the middle of June to the first of October. The egg hatches and becomes a small white borer or grub, which soon grows to the length of three-fourths of an inch, penetrates and devours the bark and sapwood, and after passing the winter in the tree it spins itself in a cocoon, under or upon the bark of the tree, and emerges again into a perfect winged insect by the following June, ready to deposit its eggs for another generation."

For protection against this insect no remedy has yet been found infallible, though it can be protected to a limited extent in different ways, of which I will describe the one I have found the most beneficial. After plowing and preparing the soil in the early part or middle of May, clear away the earth from the base of the trunk, examine the bark and remove all insects; prepare a whitewash of lime and water, adding plenty of lime, so as to make it almost a paste; apply it with a brush, so as to give the exposed base of the trunk a good coating. When this becomes perfectly dry, take a small quantity of clay soil, such as will pack well, and place it around the base of the trunk, to the height of three or four inches above the level of the soil first removed. This prevents the borer from depositing its eggs in the crown of the roots, and even lower, which is difficult to remove as well as more injurious to the tree. This packing of clay should be removed in the early part of November, and if any worms are in, they will be easily found by an exudation of glue; remove them by means of a sharp knife, which is decidedly the best instrument. After this has been done, place good mellow soil around the base of the trunk, so as to leave no place for water to stand and freeze during winter. This being annually repeated, is one of the best preventives from the bores.

Sergeantsville, N. J. G. H. LARISON, M. D.

TRANSPLANTING EVERGREENS.

THE great difficulty to be met and overcome in transplanting evergreens, is to counteract, if possible, the difference between the soil and situation of the place where the trees are taken from and the place of their future home. Another great requisite to success should not be lost sight of, viz., to carefully preserve the roots as much as possible from the light and heat of the sun. A damp, cloudy day should always be taken for the removal of evergreens. But perhaps an account of my own success in this branch of horticulture would best explain the best mode of transplanting evergreens.

The present spring, being desirous of adorning my front yard with a few handsome evergreens, and not wishing to pay the extravagant prices charged by our nurserymen for the same, I determined to go to the backwoods not far distant and select some hemlocks. Accordingly, on the 15th of May, I went to the aforesaid woods, which was in fact a muck swamp, and there I found some of the finest hemlocks, of suitable size for transplanting, that I ever saw. I pulled them up easily with my hands, for the ground was very soft and wet. Having secured half a dozen of the finest ones I could find, I started for home. My assistant told me that it would be of no use to set out such trees, as there was no earth attached to the roots, and I was moving them from a soil naturally very wet to one of the opposite extreme. However, I resolved not to falter now. I dug very deep, wide holes in the yard where they were to be placed, mellowed the earth well on the bottom, and then as I placed

in the tree I wet the roots with some water, and put the earth carefully about them with my hands, and afterwards packed it well down with my foot. After having finished this operation, I put around each tree half a wheelbarrow of fresh horse manure, which was also well pressed down. I now took a sharp knife and trimmed the trees to the shape of as perfect pyramids as possible.

The transplanting was now done, but the greater part of my success was due to the after treatment, which was as follows: — Every other day, for a week, I carefully poured a pailful of water around each tree, and after the first week. as often as once in ten days, until the first of July. The consequence of this treatment was that they scarcely stopped growing, and now the new branches on them are from one to three inches in length, and they look as green as they did the day they were taken from the woods. I think that evergreens set and tended in this way will seldom if ever die.

Lyndonville, N. Y., Aug., 1858. MYRON L. PARKER.

FRUIT STEALING.

Few things more severely test a person's patience, than after he has by great pains brought a valuable tree or vine to good bearing condition, to have the fruit stealthily taken from him just as it is becoming matured. Yet this is a common occurrence in all parts of the country; and, what is still worse, the trees are often seriously damaged by the rough usage they receive from the intruders. These depredations are generally committed with such caution as to preclude detection, and if one complains of his loss, or tries to prevent its recurrence, ten to one he will only aggravate the evil.

Besides this, a good tree always receives a marvellous number of *neighborly* visits from persons in the vicinity. The "nearest way across," is almost sure to be directly by it, and of course each one who passes that way will "*just pick up an apple*," or perhaps two or three, or indeed fill his pockets, or a basket. They know the owner will not care, "for he is always glad to give them as many as they can eat." Should a person manifest any displeasure at such treatment, he is forthwith branded as stingy, small-souled, etc. So, between kind neighbors and stealthy rogues, the fruit-grower too often fares rather poorly, and it is not strange that the question is often asked, "How shall I protect my fruit?"

In thinly settled places, where the difficulty is not very serious, it would no doubt be sufficient in many instances to plant trees and vines of the choicest kinds by the roadside, in sufficient number to produce a full supply of excellent fruit for the hungry passer. What the owner of the adjoining premises would get would repay him for setting out and taking care of them, and thieves would be hardly likely to be so strongly attached to the practice of stealing, as to go into an enclosure when there was an abundance by the roadside. It would moreover be a constant appeal to the nobler sentiments of the heart. The benevolence of the act would be appreciated even by the degraded, and it would be respected. In the vicinity of large towns, no doubt a good hedge would be the best protection.

There have been many plans devised to detect and punish intruders, but so far as I know they are of little value. After all, it is chiefly to an enlightened and elevated condition of the people, that we are to look for the security of all kinds of property; hence every measure which tends to improve public morals — whether it be to abate nuisances, gather and reform wretched outcasts, furnish employment for willing hands, or any other means—will strongly tend to check the evil in question. L. H.

COVERING HALF-HARDY PLANTS.

For covering half-hardy plants, or screening them from dry winds, various means are employed. In France, a basket is constructed of two semi-cylinders, constructed in the mode of straw hives. To these are fixed solid feet of wood to drive into the ground. If it is necessary to shelter one plant from east or north-east winds, one cylinder is sufficient; but if it is a plant which you are forced to protect, is delicate, and requires a more complete protection, you inclose it between the two semi-cylinders, fixed one to the other by means of hooks represented in the drawing. A lid of the same construction, furnished at its edge with a circle of woodwork, is fitted, when necessary, on the cylinder, and thus, perhaps, offers a more effectual shelter against the severity of cold winds and excessive heat than any other. These sorts of shades are light to move, very solid, and very warm; for, letting but little of the exterior air penetrate, they preserve at night the heat which accumulates in the interior. They would also guard plants well from the sun, and thus offer a means of checking the natural perspiration of green parts. Probably nothing could be invented more suitable for the protection of young plants, like the Magnolia grandiflora, in this latitude, where the frozen sap is attacked by the sun, and the leaves in young specimens instantly killed. For protecting the stems of grafted roses from the summer sun, they may be made of basket willows. —*Horticulturist.*

Common Plants. — A recent writer well observes: "There is nothing too common, or betokening stinginess or poverty, in having the oldest or simplest plant well grown and bloomed in a pot; everybody loves to see them. Look at the hanging plants in the Crystal Palace, and say if you ever saw so many of the very commonest plants put together before. Not one of them but the poorest man in the next village might have in his window, and yet everybody admires them. It is only that fashion requires the rich to have more costly plants, but surely there is no reason why you and I should not have them, or that we should be so foolish as to hanker after guinea plants, which are not a bit the better for being dearer."

A Profitable Apple Tree.—Mr. H. Stearns, of Fitchville, Vt., says he once paid 25 cents for a *Baldwin* apple tree, and in six years after planting he sold from this tree $5.25 worth of fruit, and had some for his own use besides.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

Blackberry Wine.—Measure your berries and bruise them, to every gallon adding one quart of water. Let the mixture stand twenty-four hours, stirring occasionally; then strain off the liquor into a cask, to every gallon adding two pounds of sugar; cork tight and let it stand till the following October, and you will have wine ready for use without any further straining or boiling.

To make a Boiled Indian Meal Pudding.—Take one quart of buttermilk, two eggs, one tea-spoonful of soda; add meal enough to make a thick batter, tie it tightly in a bag, drop it in a kettle of boiling water, and let it boil one hour. Eat it with sauce to suit the taste.

For a Baked Pudding.—Set to boiling one quart of *sweet milk;* then add two eggs well beaten, with three table-spoonsful of Indian meal and one of flour; bake it three quarters of an hour. Serve with cream and sugar.

A nice Dish of Baked Beans.—Parboil half an hour, adding a little soda; then pour off the water and rinse them; add your pork, already *notched*, cover them with water and let them boil an hour, adding a tea-spoonful of sugar to every quart of beans; then put them in a baking dish and let them brown nicely.

To Clean Ribbons.—Take equal quantities of alcohol, soft soap, and honey, mix together, spread the ribbon on a table, and rub it on with a cloth or sponge; it requires considerable rubbing. Rinse it well in several portions of water, till it looks clear. If white ribbon, blue the water. Dry quick, and iron when nearly dry.

Soda Cake.—One egg, one cup of brown sugar, or two cups of white sugar, one cup of sweet milk, one tea-spoon of soda, two tea-spoons of cream tartar, one table-spoon of butter or some other shortening, stirred rather stiffer than sponge. Flavor if you choose with lemon or rose.

Soft Ginger Cake.—Three cups flour, one cup melted butter, two cups molasses, four eggs, one tea-spoon of ginger, one tea-spoon saleratus; beat well.

Another Ginger Cake.—Put one table-spoonful of butter in a tea-cup with two table-spoons of loppered milk, nearly fill the tea-cup with molasses, or quite fill it if you like it very sweet; add one tea-spoon of saleratus, half a table-spoon of ginger, and two and a half tea-cups of flour. Twice this measure makes a nice cake.

Jelly Cake.—Two cups of flour, one cup sugar, half a cup of butter, two eggs, two table-spoons of cream, one tea-spoon of saleratus. Bake in square tins; when done, spread jelly on the top of one cake, place another upon it, then jelly and cake alternately, till thick as you wish.

Crumpets.—Take three tea-cups of raised dough, and work into it half a tea-cup of melted butter, three eggs, and milk to make a thick batter Bake in a hot buttered pan, for half an hour.

Tarts.—One tea-spoon of tartaric acid, one tea-cup of water, one tea-cup of sugar, (white sugar is the best,) three table-spoons of flour; boil on the stove till well cooked. Add more flour if not thick enough; flavor with lemon. Make a good crust for tarts, and bake; when nearly done, if the crust puffs up, flatten it down with a clean cloth. When baked, put in the acid preparation. Can use two crusts if you choose for common pies.

Telegraph Sponge.—Three eggs, one cup sugar, one flour, half a cup of butter, two table spoons of sweet milk, one tea-spoon of cream tartar, half a tea-spoon of soda, dissolve in the milk; one tea-spoon of lemon; stir only enough to mix.

Fruit Cake.—One pound of butter, one and a half pounds of sugar, one and three-fourths pounds of flour, three pounds raisins stoned and chopped, two pounds washed and dried currants, a quarter of a pound of citron, one pint of milk, four eggs, two nutmegs, two tea-spoons of saleratus, brandy to your fancy. Beat well and bake moderately.

To Remove Grease from Books.—Lay upon the spot a little magnesia or powdered chalk, and under it the same; set on it a warm flat-iron, and as soon as the grease is melted it will be all absorbed and leave the paper clean.

Apple Jelly.—Take half a gallon of the greenest apples, pare and core them; put them in a pan with water to cover them, boil one hour; strain the juice, and to every pint add three-fourths of a pound of sugar, the juice of two lemons and the rind of one. Boil one hour.

Boiled Flour Pudding.—One quart milk, nine eggs, nine spoonfuls of flour, and salt; put in a strong cloth, and boil half an hour.

Pint Cake.—One pint light dough, one cup sugar, one of butter, three eggs, and one tea-spoon of saleratus.

AMERICAN FARMERS' DAUGHTERS.

In his *North America, its Agriculture and Climate*, Robert Russell, a Scotch farmer of great intelligence, though a bachelor, is frequently constrained to compliment American farmers' wives and daughters, not only for their beauty and accomplishments, but also for their intelligent and skillful performance of household duties. In company with Prof. Holmes, he visited the farm of the President of the Michigan State Agricultural Society, at Prairie Round, and says:

"The President was from home; but his daughter, a pretty and intelligent girl, acted as hostess. As all rise early in America, dinner is usually served up about noon. The Americans are commonly good cooks, and great mechanical skill has been displayed in adapting the kitchen stoves for cooking. I do not think our fair hostess had any help to prepare our excellent dinner, with its great variety of dessert; but things went on so smoothly that one could hardly believe *that both the cook and the lady were combined in her person.* After having had some good music and native airs from our entertainer, Mr. Holmes and I found our way in the dark to Kalamazoo, highly pleased with our visit to Prairie Rond."

EDITOR'S TABLE.

New Advertisements this Month.

Fruit and Ornamental Trees—Ellwanger & Barry, Rochester, N. Y.
Andre Leroy's Nurseries—F. A. Bruguire, Agent, New York.
Commercial Nurseries—J. Donnellan & Co., Rochester, N. Y.
Genesee Valley Nurseries—A. Frost & Co., Rochester, N. Y.
Geneva Nurseries—W. T. & E. Smith, Geneva, N. Y.
New Rochelle (or Lawton) Blackberries—C. P. Bissell & Salter, Rochester, N. Y.
Wooden Water Pipe—I. S. Hobbie & Co., Rochester, N. Y.
Model Mercantile College—G. W. Eastman, Rochester, N. Y.
Scovill's Rotary Sub-Soil Attachment to Common Plows—Geo. F. Needham, Buffalo, N. Y.
Dwarf Pear Trees—Eastman & Co., Waterville, N. Y.
Agricultural Implements—A Longett, New York.
Chinese Pigs—Horace Humphrey, Winchester Centre, Conn.
Peruvian Guano and Superphosphate of Lime, A. Longett, New York.
Monroe Street Nursery—E. Boardman, Rochester, N. Y.
Great Nation of Work—E. D. Barker, New York.
Blood and Wool Manure—A. Longett, New York.
Sugar Mills, Kettles and Furnace Fixtures—Hedges, Free & Co., Cincinnati, Ohio.
Make Your Own Sugar—A. O. Moore, New York.
Book Agents, Canvassers and Colporteurs Wanted—C. M Saxton, New York.
Union Nursery—C. Moulson, Rochester, N. Y.
Cherry Stones—Thos. Meehan, Germantown Nurseries, near Philadelphia, Pa.
Ashland Clover Hulling and Cleaning Machines—Mansfield & Whiting, Ashland, Ohio.
Field's Pear Culture—A. O. Moore, New York.

Our advertising columns this month are unusually attractive. There are thirty-six advertisements, *twenty-three* of which are new! They are just what we like—*short*, and of a character most likely to be useful to our rural readers. We could easily fill the small space devoted to advertisements, by inserting patent medicine and other advertisements of a doubtful character; but all such are strictly excluded. Our object is to make *every* department of the "farmers' *own* paper" interesting, useful, and reliable. We point to our advertising columns this month with pride; we believe there is nothing in them to mislead,—most of the advertisers we know to be men of the strictest integrity.

The secret of success in business is to provide good things and such as are wanted, and then to *let the public know* that you have such things for sale. This can be done in no way so well as by advertising in papers of good character and circulation. Few persons have any idea of the great display made by an advertisement in a widely circulated paper. A single column advertisement inserted in one number of the *Genesee Farmer*, if printed in a continuous line, would be *over ninety-nine miles long*. Is $20 too much for *one hundred miles* of advertising? Some persons say our rates are too high, and that they can do better by sending off circulars. Let us see. We have been printing from 15,000 to 17,000 papers every month this year up to July, and then we printed *eighteen* thousand, in order to supply additional subscribers for the current half volume. Now, to print fifteen thousand neat circulars would cost at least $50, and the postage on them would be $150 more. In other words, to circulate a column advertisement of the *Genesee Farmer*, for which we charge $20, would cost in the form of a circular *two hundred dollars!* Then again, a circular is thrown on one side and forgotten, while the *Genesee Farmer* is usually preserved and bound up, and can be, and is, referred to repeatedly. For this reason, a monthly paper offers advantages to advertisers to be found in no others.

We make these remarks from the fact that some of our friends have complained that our advertising rates are too high. If we could afford to reduce them we would do so, as we believe that the nurserymen, agricultural implement makers and others who use our advertising columns, are doing much to advance the cause of agricultural and horticultural improvement; but we believe our charges, in proportion to circulation, are quite reasonable. One hundred words costs about twelve cents per thousand copies circulated. Is this an unreasonable charge? Who can do it cheaper, and circulate it where it will be so likely to be read and preserved for future reference?

"The Journal of the Home."—Such is the title of a monthly paper published by the Managers of the "Home for the Friendless," in this city. This institution is designed to afford a home for friendless females and children. It is under the management of kind, self-denying, Christian women. They are doing a good work. They started a paper a year ago, and it has proved very successful. A new volume commences with the September number. It is only 50 cents a year. Now is the time to subscribe. Address Mrs. Dr. Mathews, Treasurer of the Assaciation.

Our friends who have sent us one dollar for five copies of the present half volume of the *Farmer*, can have three more copies for fifty cents, and any additional number at 18½ cents each.

Inquiries and Answers.

An Experiment with Salt, Ashes and Plaster.—(W. P.) We are glad you are going to try salt on your wheat, but your proposed experiment is too much like some made on one of our "Model and Experimental Farms." It will prove nothing. If you sow ashes on one part of the field, salt on another, and "*plaster on the whole*," what will you learn? Sow them separately on three different portions, and mixed on others, and *leave a portion without anything*, and you will ascertain if they do any good, and also which does the most good, or whether they are better mixed together. It would be well to try half an acre with lime, say at the rate of fifty bushels per acre. If you could use one hundred pounds Peruvian guano on another half acre, it would add much to the interest of your experiment.

The Ladies' Repository.—(R. M.) This monthly Magazine is published by Swormstedt & Poe, Cincinnati, Ohio. Price $2 per annum. All the Methodist ministers receive subscriptions for this magazine. There is no better or higher toned periodical in the country, nor one that we can more cheerfully recommend.

THE ACTION OF PLASTER.—(M. S.) Why gypsum has a good effect on clover and not on wheat, we can not tell. The *fact* seems to be well established. We can not tell why superphosphate of lime has a good effect on turnips and not on wheat, but the *fact* is undeniable. Analyses of the plants afford no satisfactory explanation. You think the good effect of plaster is to be ascribed to its power of drawing ammonia from the atmosphere. This is LIEBIG'S explanation; but there are two objections to it:—First, it is very doubtful whether plaster will attract ammonia from the air; and second, if it does, an application of plaster ought to have the same effect as a dressing of sulphate of ammonia, *but it has just the reverse effect.* Sulphate of ammonia has a much greater effect on wheat than on clover, while plaster benefits clover and has little if any effect on wheat, in the majority of cases.

POTATO OAT.—(R. G.) This variety is said to have been discovered in a field of potatoes, in Cumberland, in 1788. For many years after its first introduction it was considered superior to all other varieties, both for the quality and quantity of grain produced. Of late years, however, its cultivation has greatly diminished on clays and secondary soils, in consequence of its increasing liability to become tulip-rooted and sedge-leafed. It is still cultivated to a considerable extent in Scotland and the North of England, on rich, well sheltered, easy soils, composed of black earth and brown loam. It has been repeatedly introduced into this country, but we believe it is not generally considered superior to the common kinds.

CUTTING SCIONS—GRAFTING WAX.—I would like to have you or some of your correspondents answer a few questions. When is the best time to cut apple grafts, in the winter or at the time of setting? The best recipe for making the wax to set with, and the best directions about setting, to have success? D.

Scions may be cut any time before the buds swell in spring, and laid in the cellar for use.

A good composition for out-door grafting may be made of 1 lb. tallow, 2 lbs. beeswax, and 7 lbs. rosin.

The best time for setting grafts is after the danger of severe frosts is past in the spring, and before the buds have pushed much.

COLORED PLATES OF FRUIT.—(R. T.) The beautiful colored plates given in the *Horticulturist*, when published in this city, were colored by JOSEPH PRESTELE, of Ebenezer, near Buffalo, N. Y. He may be able to furnish you a few at this time, but he has generally more orders than he can fulfil. D. M. DEWEY, of this city, exhibited some colored plates at the meeting of the Western New York Fruit Growers' Society, which were well done. He sells them at 25 cents each.

GUANO FOR WHEAT.—(T. B.) The genuine Peruvian is the only guano we would recommend you to try. Sow two hundred pounds per acre, and harrow it in before the wheat is sown. It should be broken up fine and sifted, to remove all the lumps. It is entirely unnecessary to mix plaster, salt, or anything with it.

R. R. HORSE POWERS.—(M. S., Seneca, C. W.) We can confidently recommend the Railroad Horse Powers manufactured by G. WESTINGHOUSE & Co., Schenectady, N. Y., or those of WHEELER, MELICK & Co., Albany, N. Y. You will get full particulars by addressing either of these well known firms.

DUTY ON GRAIN IMPORTED INTO GREAT BRITAIN.—(R. S. T.) From the British Provinces, there is no duty on grain imported into Great Britain. From the United States and other foreign countries, there is an import duty of three cents per bushel on wheat and other grain, and nine cents per cwt. on flour, meal, etc. In Cuba there is an import duty on wheat of $5 per quintal (110 lbs.) When carried by Spanish vessels 22 per cent. less.

WOODEN WATER PIPE.—(M. B., Mich.) The wooden water pipe is not designed for draining purposes, but for conveying the water from a spring to the house, barnyards, etc. We believe it gives good satisfaction. I. S. HOBBIE & Co., of this city, manufacture it, and you will obtain full particulars by addressing them. It is also manufactured by GOULD & ALLEN, Quincy, Illinois.

TENTS FOR FAIRS.—(R. T.) You can get all kinds of tents from JAS. FIELD, of this city. Mr. F. has had much experience in his business, and you will find him every way reliable. See his advertisement in another column.

SUMMER PRUNING GRAPES—TO KILL DANDELIONS.—What will kill dandelions? My grass plat is just filled with them, even after I cut out about two thousand roots and filled every hole with salt. Why did you not give the opinion of the Fruit-Growers' Society of Western N. York on summer pruning of grapes? I am cultivating some young vines, and would have liked a hint or two, as they seem to be the only sure crop of fruit in this part of the country. MRS. JAMES CUMMINGS.—*Hamilton, C. W.*

MESSRS. EDITORS:—Your Hamilton friend had better allow her young vines to grow to their full length now, for it is too late to *begin* summer pruning properly. Let them be spread out so as to receive plenty of sun and air to ripen the wood, and keep them secured to the trellis, that they may not be injured by the wind; and about the middle or last week in September, when the wood begins to turn brown, which is a sign of maturity, cut out all the small laterals growing on the main cone, close to the axil of the large leaf, but without injury to that leaf. This will leave some splendid wood for winter pruning and bearing next summer.

I should be afraid of using so much salt on a lawn near the house, to kill dandelions, as it may show its effects in the grass next year,—the dandelion being able to bear more salt than the grass. The most effectual way is to thrust a strong knife or chisel (a long narrow instrument is best, as it will not cut the roots of the grass so much as a broad one) into the ground, so as to reach the bottom of the root; loosen it and draw it out entire, and you need not put anything in the hole. If a few pertinacious old fellows, which cannot be got out whole, persist in showing themselves, a drop or two of sulphuric acid, or blue vitriol, dropped into their crowns, will effectually settle them. Now persist in the regular mowings and rakings. My rule is to mow every alternate week, whether it apparently wants it or not, and rake *every* week; and roll, with an iron roller, one day before I mow. This will roll down small stones, worm dirts, etc., and leave a smooth surface for the scythe. A proper lawn rake will rake out all the dead grass, pull off white clover heads, dandelion leaves and flowers, and prevent their seeding before it is time to mow, which they would do between the times of mowing. These regular rakings and mowings will effectually purge the lawn of everything but the grass. JOSIAH SALTER.—*East Avenue Nurseries, Rocheter, N. Y.*

GRAFTING OLD GRAPE VINES.—I wish you or some of your readers would tell me at what time and in what way to work grape vines,—whether to bud or slope-graft in last year's growth, or graft in stub as apple trees. I have a thrifty vine of the frost kind, which has been cut down a number of times but wont die. I wish to turn its obstinacy into usefulness. D. HICKOK.—*Amboy, Ohio.*

Lay by your scions in the winter, and when the vine is about to start in the spring, cut the stock close down to the ground and cleft-graft, putting in one or two grafts, ccording to the size of the stock.

EDITORS GENESEE FARMER:—How near and how deep should the soil be dug to dwarf pear trees? If it is dug too close and deep, with a broad and sharp implement, the roots will be injured. I have planted one hundred, and wish to know how close and deep to work the soil.—A. HARROLD.—*Sugar Grove, Ill.*

By using a digging fork, such as can be obtained of agricultural implement dealers, you will be able to dig quite close to your trees without injuring them. This tool is the only one that should be used for such a purpose. We have no fear that the trees will not thrive under your management. The question asked by most persons—at least mentally—is, *how far can I work away from my trees?* The *trees* usually respond.

Notices of Books, Pamphlets, &c.

A CYCLOPEDIA OF COMMERCE AND COMMERCIAL NAVIGATION. Edited by J. SMITH HOMANS, Corres. Sec'y of the Chamber of Commerce of the State of New York, and editor of "The Banker's Magazine and Statistical Register," and by J. SMITH HOMANS, Jr., B. S., author of an "Historical and Statistical Sketch of the Foreign Commerce of the United States." With Maps and Engravings. New York. HAEPER & BRO. 1858.

We alluded to this magnificent work, of 2000 pages, in the last number. Since then we have given it a more careful examination. It is an honor to the celebrated publishing house from which it emanates, as well as a monument to the industry of its editors. It is modeled after McCulloch's Dictionary of Commerce, which has been the standard work on this subject since its publication twenty-five years ago. Since then, however, great changes have taken place in the commerce of the world, and in no country more than in the United States. Thirty years ago, we had but three miles of Railroads,—now twenty-five thousand! Then no telegraph,—now thirty-five thousand miles, as well as a sub-Atlantic cable, in operation! Then we imported about five million dollars worth of iron and iron manufactures,—now about twenty-five millions. Then we exported about two hundred and eighty millions of pounds of cotton,—now one thousand millions. Then Cincinnati slaughtered 85,000 hogs,—now 344,512. These facts are not only interesting in themselves, but show the necessity of a work containing the most recent information. The world moves, and if our knowledge is derived from Cyclopedias a quarter of a century old, we shall assuredly be behind the age. The work is more particularly valuable for the merchant, but farmers and all intelligent persons will find in it much to interest and instruct. D. M. DEWEY, of the Arcade Bookstore, is the Agent for Rochester and vicinity.

THE NEW AMERICAN CYCLOPEDIA: A Popular Dictionary of General Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. New York. D. APPLETON & Co. 1858.

The third volume of this excellent work is issued. It is fully equal to the previous volumes. It is a work that was much needed. It is nearly thirty years since a complete Cyclopedia was published in this country: since that time we have doubled both our population and our area—peopled the Gold Regions—discovered a new Continent—gone through a war—buried our third generation of great Statesmen, in CLAY, CALHOUN, WEBSTER and BENTON—built towns like Chicago, all our Railways, our Ocean Steamers, our Iron Houses—invented the Photograph, the Electric Telegraph, and the Lightning Press—introduced cheap Postage, steel Pens, gummed Envelopes, Lucifer Matches, Ice, Omnibuses, Chloroform, etc., etc. These matters are all dealt with in this work. Fuller in every department and for every period than its predecessor, it has a net addition to it of the events of this period. D. M. DEWEY is agent for this city and vicinity.

THE LIFE AND ADVENTURES OF MAJ. ROGER SHERMAN POTTER. With Engravings by HUBER. New York. STANFORD & DELISSER. 1858. Price $1.25.

An amusing story of a tin pedler, who, from being a Major of the "Barnstable Invincibles," claimed to be a military man, and in this character was accorded a "Public Reception" in New York—be-praised by the press, and got a "foreign mission" from the Administration at Washington, and then accepted the Governorship of a fillibustering expedition against the country to which he was the accredited minister.

National, State, and County Fairs for 1858.

NATIONAL.

U. S. Ag. Society,	Richmond, Va.,	October 25—30.
National Horse Show,	Springfield, Mass.,	September 14—17.

STATE.

Alabama,	Montgomery,	October 18—22.
Connecticut,	Hartford,	October 12—15.
Illinois,	Centralia,	September 14—18.
Indiana,	Indianapolis,	October 4—9.
Iowa,	Oscaloosa,	Sept. 28—Oct. 1.
Kentucky,	Louisville,	Sept. 27—Oct. 1.
Maine,	Augusta,	September 21—24.
Maryland,	Baltimore,	October 19—23.
Michigan,	Detroit,	Sept. 28—Oct. 1.
Mississippi,	Jackson,	November 9—12.
Missouri,	St. Louis,	September 6—10.
New Jersey,	Trenton,	September 14—17.
New Hampshire,	Dover,	October 6—8.
New York,	Syracuse,	October 5—8.
North Carolina,	Raleigh,	November 2—6.
Ohio,	Sandusky,	September 14—17.
Pennsylvania,	Pittsburgh,	Sept. 28—Oct. 1.
Rhode Island,	Providence,	September 14—18.
South Carolina,	Columbia,	November 9—12.
Tennessee,		October.
Virginia,	Petersburgh,	November 2—5.
Vermont,	Burlington,	September 14—17.
Wisconsin,	Madison,	October 4—7.

PROVINCIAL.

Canada East,	Montreal,	Sept. 29—Oct. 1.
Canada West,	Toronto,	Sept. 28—Oct. 1.

NEW YORK.

COUNTY SOCIETIES.

Albany, Albany,	September 21—24.
Broome, Lisle,	September 28—30.
Chenango, Norwich,	September 23—25.
Delaware, Franklin,	September 22, 23.
Genesee, Batavia,	September 16—18.
Greene, Cairo,	September 29, 30.
Livingston, Genesco,	September 22 - 24.
Madison, Morrisville,	September 8—10.
Monroe, Rochester,	September 14—17.
Montgomery, Fonda,	October 26.
Oneida, Rome,	September 28—30.
Onondaga, Syracuse,	September 22, 23.
Ontario, Canandaigua,	September 29—Oct. 1.
Orange, Montgomery,	September 29, 30.
Orleans, Albion,	September 29, 30.
Oswego, Fulton,	September 22—24.
Queens, Flushing,	September 22.
Rensselaer,	
Saratoga, Mechanicsville,	September 7—9.
Schuyler, Watkins,	September 28, 29.
Seneca, Farmersville,	October 13—15.
St. Lawrence, Canton,	September 15—17.
Washington, Salem,	September 23, 24.
Wayne, Lyons,	September 22, 23.
Wyoming, Warsaw,	September 28—30.
Yates, Penn Yan,	September 23, 24.

TOWN SOCIETIES.

Brookfield, Clarksville,	September 27, 28.
Dryden, Dryden,	September 30, Oct. 1.
Lodi, Lodi,	September 15—17.
Nunda Union, Nunda, Livingston Co.,	September 8, 9.
Skaneateles, Skaneateles,	September 29.
Susquehanna Valley, Unadilla,	September 29, 30.
Tonawanda Valley, Attica,	September 22—23.
Union, Adams, Jeff. Co.,	September 15, 16.
Yates, Yates Centre, Orleans Co.,	September 24, 25.

MAINE.

Androscoggin, Lewiston,.....October 5—7.
East Somerset, Hartland,.....October 6, 7.
Kennebec, Readfield.....October 12—14.
Lincoln, Jefferson,.....October 12—14.
North Aroostook, Presque Isle,.....October 6, 7.
North Penobscot, Lee,.....October 13, 14.
North Somerset, Solon,.....October 13, 14.
Oxford, South Paris,.....October 5—7.
Somerset, Skowhegan,.....September 28—30.
South Kennebec, Gardiner,.....October 12—14.
West Somerset, Anson,.....October 6, 7.
York, Saco,.....October 12, 13.

NEW HAMPSHIRE.

Belknap, —.....September 29—30.
Sullivan, Charlestown,.....September 15, 16.

MASSACHUSETTS.

Barnstable, Barnstable,.....October 6, 7.
Berkshire, Pittsfield,.....October 6—8.
Bristol, Taunton,.....September 22, 23.
Essex, Danvers,.....September 29, 30.
Franklin, Greenfield,.....October 6, 7.
Hampden, Springfield,.....September 28—30.
Hampden East, Palmer Depot,.....October 5, 6.
Hampshire, Amherst,.....October 12, 13.
Hampshire, Franklin and Hampden, at Northampton, Oct. 13, 14.
Housatonic, Great Barrington,.....September 22—24.
Middlesex, Concord,.....September 29.
Middlesex North, Lowell,.....September 15—17.
Middlesex South, Farmingham,.....September 21, 22.
Nantucket, Nantucket.....October 13, 14.
Norfolk, Dedham.....September 28—29.
Plymouth, Bridgewater,.....September 29; 30.
Worcester, Worcester,.....October 6, 7.
Worcester North, Fitchburg,.....September 24.
Worcester South, Stonebridge,.....September 29.
Worcester West, Barre,.....September 30.

CONNECTICUT.

Fairfield, Danbury,.....September 21—24.
Greenwoods, Winsted,.....—
Litchfield, Litchfield,.....September 22—23.
Middlesex, Middletown,.....October 6—8.
New London, Norwick,.....September 22—24.
Tolland, near Rockville,.....October 6—7.
Windham, Brooklyn,.....September 29—Oct. 1.

PENNSYLVANIA.

Berks, Reading,.....September 29—Oct. 2.
Bucks, Newton,.....September 29.
Chester, Westchester,.....October 1, 2.
Crawford, Conneautville,.....October 5—7.
Lehigh, Allentown,.....September 28—Oct. 1.
Mercer, Mercer,.....September 22, 23.
Tioga, Wellsboro',.....September 29, 30.
York, York,.....October 6—9.

OHIO.

Ashtabula, Jefferson,.....September 7—9.
Adams, West Union,.....September 28—30.
Athens, Athens,.....October 14, 15.
Brown, Georgetown,.....September 7—9.
Butler, Hamilton,.....October 5—8.
Belmont, St. Clairsville,.....September 28—Oct. 1.
Clermont, Bantam,.....September 14—17.
Clermont, Olive Branch,.....September 21—24.
Columbia, New Lisbon,.....September 20—22.
Champaign, Urbana,.....September 28—Oct. 1.
Crawford, Bucyrus,.....September 29—Oct. 1.
Clark, Springfield,.....October 6—8.
Coshocton, Coshocton,.....October 6—8.
Carroll, Carrollton,.....October 14—16.
Cuyahoga, Cleveland,.....October 5—7.
Darke, Greenville,.....September 22—24.
Delaware, Delaware,.....September 29—Oct. 1.
Defiance, Defiance,.....October 6—8.
Erie, Huron,.....October 6—8.
Fayette, Washington,.....September 7—9.
Franklin Columbus,.....September 8—10.
Fulton, Otakee,.....October 6, 7.
Greene, Xenia,.....September 28—30.
Geauga, (Fice) Claridon,.....September 28—30.
Geauga, Burton,.....September 22—24.
Guernsey, Cambridge,.....September 23, 24.
Hardin, Kenton,.....September 29, 30.
Hamilton, Carthage,.....September 7—10.
Harrison, Cadiz,.....October 6—8.
Highland, Hillsboro,.....September 29—Oct. 1.
Hancock, Findlay,.....October 7—9.
Hocking, Logan,.....September 29, 30.
Holmes, Millersburg,.....October 12—14.
Knox, Mount Vernon,.....September 28—30.
Lawrence, Ironton,.....September 22—24.
Licking, Newark,.....October 6, 7.
Lorain, Elyria,.....October 5—7.
Logan, Bellefontaine,.....October 5—8.
Lake, Painesville,.....September 29—24.
Mahoning, Canfield,.....October 5—7.
Montgomery, Dayton,.....September 29—Oct 1.
Morgan, McConnelsville,.....October 6—8.
Morrow, Mt. Gilead,.....October 13—15.
Madison, London,.....September 22—24.
Miami, Troy,.....September 29—Oct 1.
Noble, Sarahsville,.....September 23, 24.
Portage, Ravenna,.....September 20—22.
Putnam, Kalida.....October 7, 8.
Richland, Mansfield,.....September 29—Oct. 1.
Ross, Chillicothe,.....September 29—Oct. 1.
Sandusky, Fremont,.....October 6—8.
Seneca, Tiffin,.....October 6—8.
Stark, Massillon,.....October 5—7.
Summit, (Union) Twinsburg,.....September 8—10.
Summit, Akron,.....October 6—8.
Tuscarawas, North Philadelphia,.....September 29—Oct 1.
Union, Marysville,.....October 6—8.
Van Wert, Van Wert,.....October 5, 6.
Williams, Bryan,.....October 6—8.
Washington, Marietta,.....October 6—8.
Wood, Bowling Green,.....October 6—8.
Warren, Lebanon,.....September 28—30.
Wayne, Wooster,.....September 29—Oct 1.

MICHIGAN.

Barry, Hastings,.....October 13, 14.
Berrien, Niles,.....October 6, 7.
Branch, Coldwater,.....October 6—8.
Calhoun Marshall,.....October 5—7.
Clinton, St. Johns,.....October 13, 14.
Eaton, Charlotte,.....September 28—30.
Genesee, Flint,.....October 6, 7.
Jackson, Jackson,.....October 6—8.
Kalamazoo, Kalamazoo,.....September 22—24.
Kent, Grand Rapids,.....October 5—7.
Lenawee, Adrian,.....October 6, 7.
Northern Lenawee, Tecumseh,.....September 16.
Oakland, Pontiac.....October 6—8.
Ottawa, Eastmanville,.....September 22, 23.
St. Joseph, Centerville,.....September 29, 30.

INDIANA.

Blackford, Hartford City,.....October 14—16.
Boone, Lebanon,.....September 16, 17.
Clark, Charlestown,.....September 22—24.
Delaware, Muncie,.....September 29—Oct 1.
Fayette, Connersville,.....September 7—10.
Fountain and Warren, Attica,.....September 29—Oct 1.
Fulton, Rochester,.....October 15, 16.
Hendrick's, Danville,.....September 14—17.
Henry, Newcastle,.....September 22—24.
Howard, Kokomo,.....October 21, 22.
Jefferson, Madison,.....September 22, 23.
Jennings, Vernon,.....September 15—17.
Kosciusko, Warsaw,.....October 13—15.
La Porte, La Porte,.....September 28—Oct 1.
Marion, Indianapolis,.....September 22—24.
Montgomery, Crawfordsville,.....September 15—17.
Morgan, Centertown,.....September 8—11.
Ohio and Switzerland, Enterprize,.....September 28—30.
Owen, Spencer,.....September 22—24.
Rush, Rushville,.....September 14—17.
Scott, Lexington,.....September 28—30.
Shelby, Shelbyville,.....September 7—10.
Southwestern, Vincennes,.....October 19—22.
Spencer, Rockport,.....September 22—24.
Sullivan, Carlisle,.....September 30, Oct. 1.
Wabash, Wabash,.....September 28—30.
Washington, Salem,.....September 20—23.
Wayne Richmond,.....September 28—Oct. 1.

ILLINOIS.

Adams, Quincy,.....September 29—Oct 1.
Carroll, Mt. Carroll,.....September 29—Oct 1.
Champaign, Urbana,.....September 21.
Edgar, (Wabash Valley) Paris,.....September 28—Oct 1.
Henry, Cambridge,.....September 8, 9.
Kane, Geneva,.....September 23, 24.
Kankakee, Kankakee,.....October 6—8.
Lake, Libertyville,.....October 5, 6.
La Salle Ottawa,.....September 28—30.
Lee, Amboy,.....September 15—17.
Livingston, Pontiac,.....October 6, 7.
Macon, Decatur,.....September 7—10.
Mason, Havana,.....September 29—Oct 1.
Mercer, Millersburg,.....September 28—30.
Morgan, Jacksonville,.....September 28—Oct 1.
Monigomery, Hillsboro,.....September 28—Oct 1.
Peoria, Peoria,.....September 21—24.
Pike, Pittsfield.....September 8—10.
Rock Island, Rock Island,.....September 8, 9.
Scott, Winchester,.....September 22—24.
Stephenson, Freeport,.....October 6—8.
Tazewell, Eremont.....Sept.—
Union, Jonesboro,.....September 10, 11.
Warsaw, Warsaw,.....September —Oct 1.
Will, Joliet,.....September 28—30.
Winnebago, Rockford,.....September 21—24.

KENTUCKY.

Christian, Hopkinsville,.....October 20—25.
Daviess, Owensboro,.....October 12—15.
Nelson, Bardstown,.....September 21—24.
Henderson, Hopkins, and Union, near Henderson, Oct. 5—8.
Bourbon, Paris,.....September 7—10.
Harrison, Cynthiana,.....September 21—24.

TENNESSEE.

Bedford, Shelbyville,.....October 5—8.
Carroll, Huntingdon,.....October 14—16.
De Kalb, Alexandria,.....September 21—24.
Dyer, Dyersburg,.....October 8—12.
Eastern Division,..... ——
Fayette, Somerville,.....October 5—9.
Gibson, Trenton,..... ——
Giles, Pulaski,.....September 21—24.
Macon, Lafayette,.....October 25—31.
Marshall, Lewisburg,.....September 21—24.
Middle Division, Columbia,.....September 27—Oct. 2.
Smith, Rome,.....September 29—Oct. 2.
Sumner, Gallatin,..... ——
Western Division, Jackson,.....October 19—23,
Wilson, Lebanon,.....October 5—9.
Williamson, Franklin,.....October 5—8.

MISSOURI.

Boone, Columbia,.....September 30—Oct. 2.
Central District, Booneville,.....October 4—10.
Howard, Fayette,.....September 14—18.
Lafayette, Lexington,.....September 14—18.
N. E. District, Paris,.....September 13—18.
N. W. District, St. Joseph,.....September 21—25.
Pettis, Georgetown,.....September 14—17.
Saline, Miami,.....September 21—24.
St. Louis Mech., and Ag., St. Louis,.....September 6—12.

WISCONSIN.

Crawford, Seneca,.....October 12, 13.
Lafayette, Darlington,.....September 21, 22.
N. W. Union, River Falls,.....September 22, 32.
Portage, Portage,.....October 15, 16.
Richland, Richland Centre,.....October 6, 7.
Walworth, Elkhorn,.....September 29—Oct. 1.

IOWA.

Boone, Boonesboro',.....September 22, 23.
Decatur, Lacon,.....September 29, 30.
Henry, Mt. Pleasant,.....October 5, 6.
Jefferson, Fairfield,.....September 22, 23.
Johnson, Iowa City,.....September 15, 16.
Lee, West Point,.....September 15—17.
Louisa, Wapello,.....October 6.
Marion, Knoxville,.....October 21, 22.
Pottawattomie, Council, Bluffs,.....October 14, 15.
Polk, Des Moines,.....September 14—16.
Sioux, Sioux City,.....October 4.
Van Buren, Keosauqua,.....October 13, 14.
Wapello, Ottumwa,.....October 22—24.

VIRGINIA.

Brooke, Wellsburg,.....September 22—24.
N. W. Division, Wheeling Island,.....September 14—17.

NEW JERSEY.

Burlington, Mt. Holly,.....October 5, 6.

NEBRASKA.

Cass, Rock Bluffs,.....October 1, 2.
Nemaha, Brownville,.....October 13—16.

ADVERTISEMENTS,

To secure insertion in the FARMER, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. TERMS—Two Dollars for every hundred words, each insertion, PAID IN ADVANCE.

AGRICULTURAL IMPLEMENTS—For sale at manufacturers' prices, to close consignments.
Sep.—1t A. LONGETT, 34 Cliff street, New York.

PERUVIAN GUANO—Government brand and weight. SUPERPHOSPHATE OF LIME. For sale by
Sep.—1t A. LONGETT, 34 Cliff street, New York.

CHINESE PIGS—Also a few Breeding Sows and Boars, warranted of pure blood, for sale by
HORACE HUMPHREY,
September, 1858.—1t* Winchester Center, Conn.

MONROE STREET NURSERY, ROCHESTER, N. Y.

THE Subscriber has for sale, Apple, Pear, Cherry, Peach and Plum Trees; also, European Mountain Ash, Balsam Fir, and Norway Spruce Trees. Also, a good variety of Strawberry Plants and Currants. All to be sold at the lowest market prices, either wholesale or retail. E. BOARDMAN.
September, 1858.—2t.

GREAT NATIONAL WORK.—Frank Forester's Horse and Horsemanship of America. Agents wanted for this and other valuable books, at good profits. Address
Sep.—1t* E. D. BARKER, 348 Broadway, New York.

STRAWBERRY PLANTS.—All of the most approved varieties for sale at the Rochester Central Nurseries. Catalogues sent free on application to C. W. SEELYE,
August, 1858—2t Rochester, N. Y.

BLOOD AND WOOL MANURE—This article has proved superior to Peruvian Guano, in various trials this spring. Price $30 per ton of 2000 lbs. For sale by
Sep.—1t A. LONGETT, 34 Cliff street, New York.

A. LONGETT,
No. 34 CLIFF STREET, NEW YORK,

DEALER in Peruvian and Elide Island Guanos, Superphosphate of Lime, Blood and Wool Manure, and Bone Dust.
November 1, 1857.—1y.

LEHIGH MOUNTAIN SPRINGS WATER CURE.

ALL diseases are curenble with Water, Air, and Diet, at this celebrated Institution. Beautiful scenery, pleasant drives, walks, and rowing connected with the Cure. Address
September, 1858.—1t* A. SMITH, M. D., Bethlehem, Pa.

SUGAR MILLS, KETTLES AND FURNACE FIXTURES.

WE are now prepared to furnish Sugar Mills, Boilers, Clarifiers, Skimmers, Saccharometers, Furnace Fixtures, and indeed anything pertaining to Sugar and Syrup making, promptly. Our Illustrated Catalogue with directions for Syrup and Sugar making, furnished gratis, or mailed on receipt of postage stamp.
HEDGES, FREE & CO.
September, 1858.—1t. Cincinnati, Ohio.

MAKE YOUR OWN SUGAR.

FULL instructions for making SUGAR AND MOLASSES from the New Sugar Canes, and a description of the implements and utensils required; *simple and plain for the use of Farmers*, to which are added the latest experience of those who have made Sugar, and I. S. Lovering's pamphlet, all contained in Olcott's new work, "SORGHO & IMPHEE." PRICE $1.
Sent by mail, free of postage, on receipt of price.
A. O. MOORE, Agricultural Book Publisher,
September, 1858.—1t. 140 Fulton St., New York.

A. FROST & CO.,
GENESEE VALLEY NURSERIES,
ROCHESTER, N. Y.,

HAVE published their Wholesale Catalogue, No. 4, of Fruit, Ornamental Trees, Plants, &c., containing prices for the Autumn of 1858.
All those parties who wish to purchase largely, will consult their interest by examining this Catalogue. It is sent *free* to all applicants, by enclosing a stamp.
September, 1858.—2t

$500 TO $2,000 A YEAR!
A CHANCE TO MAKE MONEY AND DO GOOD!
More than a Hundred kinds of Popular Books for the People.

BOOK AGENTS, COLPORTEURS AND CANVASSERS, can be sure of pleasant and profitable business by engaging in the sale of our publications. They are all good books, well printed, well bound, and very popular. Scarcely a family in the country but would be glad to buy one or more of them, when brought to their door.
From $5 to $10 per day can be cleared, where perseverance, industry and skill are exercised.
Those desiring Agencies, will for particulars, address
C. M. SAXTON,
September, 1858.—7t. 25 Park Row, New-York.

UNION NURSERY, ROCHESTER, N. Y,

THE Proprietor of this Nursery, has a largely increased Stock of Fruit and Ornamental Trees for sale this Autumn, and in addition to a general variety, would invite the attention of purchasers especially to the following:

50,000 Standard Apple Trees, 4 and 5 years old.
3,000 Dwarf do on Paradise, 3 and 4 years old.
5,000 Standard Pears, 2 and 3 years old.
10,000 Dwarf do 2 to 6 years old.
6,000 Standard Cherries, 2 and 3 years old.
3,000 Dwarf do on Mahaleb, 2 and 3 years old.
3,000 Plums, 2 to 4 years old.
5,000 Peaches.
3,000 Orange Quinces.
4,000 Queen of the Prairie Roses, Layers, 2 and 3 years.
2,000 Giant Rhubarb. Also, Apple, Plum and Cherry Stocks. CHAS. MOULSON.
Rochester, September 1, 1858.—1t.

FRUIT AND ORNAMENTAL TREES.

ELLWANGER & BARRY, solicit the attention of Planters, Nurserymen and dealers in Trees, to their present Stock, which has never been equalled in extent, nor surpassed in vigor, health and beauty of growth. It embraces

STANDARD AND DWARF FRUIT TREES, of all kinds, and of various ages.

GRAPES—All the best, new and old hardy sorts for the Garden and Vineyard, and all the best Foreign sorts for Vineries.

SMALL FRUITS—Including all the finest Strawberries Raspberries, Gooseberries, Currants, Blackberries, &c. (The Stock of American Seedling Gooseberry, and of New Rochelle or Lawton Blackberry is the largest in existance.)

RHUBARB—Linnæus, and all the best sorts.

THE ORNAMENTAL DEPARTMENT

Embraces the finest collections of

DECIDUOUS ORNAMENTAL TREES.
WEEPING, OR DROOPING TREES.
EVERGREEN TREES.
FLOWERING SHRUBS AND PLANTS.
CLIMBING SHRUBS.
ROSES, PÆONIES, DAHLIAS, &c.
BULBOUS FLOWERS—Such as Hyacinths, Tulips, &c.

STOCK FOR NURSERYMEN,

Including,

PEAR SEEDLINGS, 1 & 2 years.
MAZZARD AND MAHALEB CHERRY SEEDLINGS.
ANGERS AND FONTENAY QUINCE.
MANETTI ROSE STOCK.
COMEWELL WILLOW—A Stock for the Weeping Sorts.

All who are interested are respectfully invited to examine the stock and prices. The following Catalogues are sent gratis, prepaid, to all who apply and inclose one stamp for each.

No. 1—Descriptive Catalogue of Fruits.
" 2—Descriptive Catalogue of Ornamental Trees, &c.
" 3—Descriptive Catalogue of Green-house and Bedding-out Plants.
" 4—Wholesale or Trade List.

ELLWANGER & BARRY,
September, 1858.—1t. Mount Hope Nurseries, Rochester, N. Y.

ANDRÉ LEROY'S NURSERIES,
AT ANGERS, FRANCE.

THE Proprietor of these Nurseries—the most extensive in Europe, has the honor to inform his numerous friends and the public, that his Catalogue of Fruit and Ornamental Trees, Shrubs, Roses, Seedlings, Fruit Stocks, &c., for the present season, is now ready, and at their disposition.

The experience which he has acquired in the last ten years by numerous and important invoices to the U. S., and the special cultures which he has established for that market upon an area of over 300 acres, are for his customers a sure guarantee of the proper and faithful execution of their orders.

Apply as heretofore, to F. A. BRUGUIERE, 138 Pearl Street, New York, his sole agent in the U. S.

NOTE.—All advertisements or circulars, bearing the name of LEROY, ANGERS, must not be considered as emanating from our House, if they do not at the same time, mention that F. A. BRUGUIERE, is our agent. Address,

F. A. BRUGUIERE, New York,
September, 1858.—4t. ANDRE LEROY, Angers, France.

ROCHESTER AND LAKE AVENUE COMMERCIAL NURSERIES, ROCHESTER, N. Y.

THE Proprietors of this old establishment, offer for sale this Fall, the following varieties of Fruit Trees, &c., which will be found thrifty and well grown

STANDARD AND DWARF APPLE, PEAR, PLUM, PEACH, CHERRY, APRICOT, NECTARINES, QUINCE.

Also, have constantly on hand, a general assortment of ORNAMENTAL TREES, SHRUBS, EVERGREENS AND ROSES, HERBACEOUS PLANTS, GREEN HOUSE AND BEDDING-OUT PLANTS, &c., &c., &c.

The above will be disposed of *low*, at *wholesale* and retail. Orders with cash or good reference, will be attended to promptly. Catalogues sent gratis on receipt of one cent stamp.

☞ Stocks for Nurserymen.

September, 1858. J. DONNELLAN & CO.

NEW ROCHELLE (OR LAWTON) BLACKBERRIES, CHEAPER THAN EVER.

BECAUSE we had such perfect success last fall, in sending New Rochelle (or Lawton) Blackberry Plants by *mail*, we shall again send suitable sizes, carefully packed and *postage paid*, at $1 50 per dozen.

Suitable sizes, Brinckles Orange Raspberry Plants, also, $1 50 per dozen. Warranted to do well if printed directions are followed. C. P. BISSELL & SALTER,

September, 1858.—1t. East Avenue Nurseries, Rochester, N. Y.

1,000 AGENTS WANTED.—For particulars, send stamp. jy 3t* C. P. WHITTEN, Lowell, Mass.

GENESEE VALLEY NURSERIES.

FRUIT TREES, ORNAMENTAL TREES, SHRUBS, ROSES, &C., &C.

THE proprietors of these well known and extensive Nurseries have on hand a large and well-grown stock of

FRUIT TREES, ORNAMENTAL TREES, SHRUBS, ROSES, GREEN-HOUSE and BEDDING PLANTS, DALHIAS, PHLOXES and other HARDY BORDER PLANTS.

The assortment of ROSES is very extensive, and embraces all varieties which could be obtained and which are considered worthy of cultivation. Our collection of HYBRID PERPETUALS is the most complete in the country.

The GREEN-HOUSE DEPARTMENT receives particular attention, and the stock of Fuchsais, Geraniums, and other Green-House Plants, is large and varied. In the

FRUIT DEPARTMENT,

our stock consists of

APPLES, of the leading varieties, Dwarf and Standard.
PEARS, of all desirable varieties, on Quince and Pear stock.
PLUMS—A choice selection of well-grown trees of popular sorts.
CHERRIES—All the popular sorts, Dwarf and Standard.
PEACHES—A choice assortment.
NECTARINES, APRICOTS and QUINCES, in variety.
GRAPES—A complete assortment of both native and foreign sorts, including many of recent introduction.

SMALL FRUITS.

CURRANTS—Twenty-five choice sorts, including many new varieties.
RASPBERRIES, GOOSEBERRIES, BLACKBERRIES, and STRAWBERRIES of all new and approved varieties.

We have, for the accommodation of NURSERYMEN, STOCKS and SEEDLINGS, including APPLE, PEAR, PLUM, CHERRY QUINCE, &c., &c. Also, SEEDLINGS OF EVERGREEN TREES, including Norway Spruce, Balsam Fir, Scotch Pine, Austrian Pine, Larch and Hedge Plants.

ORNAMENTAL DEPARTMENT.

The stock of Ornamental Trees and Shrubs, both Deciduous and Evergreen, will be found to embrace all that is desirable among LAWN and STREET TREES and SHRUBS. ROSES, consisting of Hybrid Perpetual and Summer Roses; Moss, Bourbon, Noisette, Tea, Bengal or China, and Climbing or Prairie Roses.

HARDY HERBACEOUS or BORDER PLANTS and BULBOUS FLOWER ROOTS, an extensive assortment.

All the above will be disposed of at low rates, and on advantageous terms. For further details we refer to our full set of Catalogues, which will be mailed to applicants who enclose a one cent stamp, for each.

No. 1. Descriptive Catalogue of Fruits, &c.
" 2. do do Ornamental Trees, Shrubs, Roses, &c.
" 3. do do Green-House and Bedding Plants, Dahlias, &.
" 4. Wholesale or Trade List for Nurserymen and Dealers.
" 5. Catalogue of Bulbous Flower Roots.

☞ All communications to be addressed to

A. FROST & Co.,
Sep. 1858.—2t. Genesee Valley Nurseries, Rochester. N. Y.

GENEVA NURSERIES, GENEVA, N. Y.

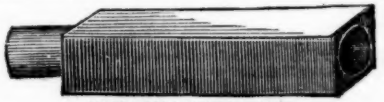
ON hand, a large stock of Fruit and Ornamental Trees, Shrubs Roses, grown on a clay and gravelly soil, consequently being both hardy and vigorous, warranted true to name of

Dwarf and Standard Pears.
Dwarf and Standard Apples.
Dwarf and Standard Cherries.

Also, Peaches, Plums, Apricots, Nectarines, Currants, Raspberries, Gooseberries, Lawton Blackberry, Strawberry Plants, Grape Vines, &c.

Also, the New and Hardy Grapes of Concord, Rebecca, Delaware, Diana, Hartford Prolific, with the best Foreign sorts for culture under glass. Green House Plants, Bulbous Flower Roots, to plant in Sept.—Prices moderate. Stocks for Nurserymen, of Cherry, Plum, Pear, Apple, Manette Rose Stocks. Wholesale and retail Catalogues sent on application. W. T. & E. SMITH,

September, 1858.—1t* Geneva, N. Y.



WOODEN WATER PIPE.

THIS Pipe has been extensively used by Farmers and others, during the last year, and is undoubtedly the best and cheapest that can be used for the purpose of carrying water from springs, or for artificial watering places, or water course of any description. Its cheapness brings it within the reach of all.

Manufactured by I. S. HOBBIE & CO.,
September, 1858.—1t. Rochester, N. Y.

FRUIT-CULTURE FOR THE MILLION!

JUST PUBLISHED.

A HAND-BOOK OF FRUIT-CULTURE; being a Guide to the Culture and Management of Fruit-Trees, with Condensed Descriptions of many of the Best and most Popular Varieties in the United States. Illustrated with nearly a hundred Engravings. By THOMAS GREGG.

PART FIRST CONTAINS:

INTRODUCTORY REMARKS, TRANSPLANTING,
PRELIMINARIES TO PLANTING, AFTER-CULTURE.

PART SECOND.

THE DIFFERENT KINDS OF FRUIT.

ALMONDS,	APRICOTS,	APPLES,
BLACKBERRIES,	CHERRIES,	CURRANTS,
GOOSEBERRIES,	GRAPES,	NECTARINES,
PEACHES,	PEARS,	PLUMS,
QUINCES,	RASPBERRIES,	STRAWBERRIES.

Sent prepaid by first mail, in paper, for 30 cents; in muslin, 50 cents. Agents wanted. Address FOWLER & WELLS,
August, 1858.—2t 308 Broadway, New York.

FRUIT AND ORNAMENTAL TREES.

WE offer for sale, the coming fall, a large and fine assortment of
APPLE TREES, 3 and 4 years, stocks and healthy.
PEAR " Standard and Dwarf, 2 and 3 years, very fine.
" " Dwarf, 1 year, *superb*, and *very cheap* in large quantities.
CHERRY " Std & Dw'f, 2 years, hardy sorts and *strong*.
PLUM " 2 years, on Plum stock.
PEACH " 1 and 2 years, handsome.
APRICOTS, ORANGE QUINCE, GRAPES, &c., &c.
CURRANTS, GOOSEBERRIES, RASPBERRIES, BLACKBERRIES, STRAWBERRIES, RHUBARB, &c.

HORSE CHESTNUT, MOUNTAIN ASH, LINDENS, MAPLES, AMERICAN and EUROPEAN ASH, AMERICAN CHESTNUT, SHRUBS, ROSES, &c.

Also, a fine stock of BALSAM FIR, NORWAY SPRUCE, AMERICAN ARBOR VITÆ, and a general assortment of other Nursery articles.

Nurserymen, Dealers, and Planters, are invited to call.
Orders promptly attended to.
Descriptive and Wholesale Catalogues furnished.
T. C. MAXWELL & BRO'S.
Geneva, Ontario county, N. Y., August 1, 1858.—2t

U. S. TENT AND FLAG MANUFACTORY,
No. 12 Buffalo St., Rochester, N. Y.

HAVING purchased the entire stock of Tents and Flags formerly owned by E. C. Williams, I am prepared to rent the same at reasonable rates, for Agricultural Fairs, Military Encampments, Camp Meetings, Conferences, &c., &c.

I will also manufacture, on short notice, Tents, Flags, Awnings, Bags, and everything pertaining to this branch of business.
Address JAMES FIELD,
July, 1858.—3t* Box 701, Rochester, N. Y.

ALBANY TILE WORKS.
Corner Clinton Avenue and Knox Sts., Albany, N.Y.

THE SUBSCRIBERS, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, Sole and Horse-shoe Tile, warranted superior to any made in this country, hard burned, and over one foot in length. Orders solicited. Cartage free.
C. & W. McCAMMON. Albany, N. Y,
DAMA & Co., Agents, Utica.
JAS. WALKER & Co., Agents, Schenectady. April—6t

NURSERYMEN, FLORISTS, AND AGRICULTURISTS,

PAUL BOSSANGE, Agent for LOUIS LEROY, of the GRAND JARDIN, Angers, France, begs to announce that he is now fully prepared to execute all orders for Fruit, Forest, and Ornamental Trees, Shrubs, Flowers, &c.

Catalogues of the prices current, embracing shipping and insurance charges, and all other needful information, may be had (gratis) on application to PAUL BOSSANGE,
June, 1858.—4t. 20 Beekman street, New York.

5,000 AGENTS WANTED—To sell four new inventions. Agents have made over $25,000 on one,—better than all other similar agencies. Send four stamps and get 80 pages particulars, gratis. EPHRAIM BROWN, Lowell, Mass
July, 1858.—3t*

BASS BARK—Prepared by ourselves for the use of Nurserymen in budding. Price 25 cents per lb.
H. E. HOOKER & CO.,
August, 1858—2t Commercial Nurseries, Rochester, N. Y.

J. W. Eastman's

MODEL MERCANTILE COLLEGE,
ROCHESTER, N. Y.,

RE-OPENS PERMANENTLY, SEPTEMBER 1st, 1858,

IN WAMSLEY'S MARBLE BLOCK, MAIN STREET,

When will be introduced a new mode of Instruction, combining *Theory* and *Practice*, by means of certain Counting Room and Banking arrangements, approved practical forms, routine of business, etc., etc. The rooms appropriated to college purposes in this splendid block, are the largest and most elegant of any Commercial Institution in the country, containing over ten thousand square feet of floor, and furnished in the most elegant manner. Every variety of business is appropriately represented, and *actually performed* by the pupil, until he becomes practically familiar with the process of opening, conducting, and closing books, and the whole routine of mercantile transactions, from the details of a country store to the more complicated operations of the highest banking institution.

For full particulars, send for circulars.
G. W. EASTMAN, President,
Author of Fulton & Eastman's Penmanship and Book-Keeping.
Rochester, September 1, 1858.

IMPORTANT TO FARMERS.

THE greatest improvement of the age is "SCOVILL'S ROTARY SUB-SOIL ATTACHMENT TO COMMON PLOWS." By its use, one-third can be added to crops, without extra labor or cost.

This is an entirely new Implement, creating no little excitement, and is wanted by every farmer whose motto is "*Excelsior*."

Many testimonials similar to the following from Mr. Johnson, Sec'y N. Y. State Ag. Society, might be given:

"I consider this to be a very valuable contribution to the agriculturist, and believe it to be the thing needed to fill a great want of the country."

Its advantages over the sub-soil plow are—
1st. It does its work better.
2d. The plowing and subsoiling are done at the same time. Thus, work of extra team and "help" is saved.
3d. Plows run easier with the "Attachment" than without it.

Price of "Attachment," $6, and it can be applied to any plow; of Plow and Attachment, $18; and *warranted to suit*.
Address GEO. F. NEEDHAM,
September, 1858.—1t Agricultural House, Buffalo, N. Y.

ATTENTION! NURSERYMEN, FARMERS, &C.

WE have now on hand, 20000 Dwarf Pear Trees, 2 to 4 years old, of the finest growth, consisting of all the leading varieties. Also, 250,000 French Quince Stocks, which we offer at the following Low prices:

DWARF PEARS, 3 to 4 years old, well rooted and branched, $20 00 per hundred.
" " 500, or upwards, $16 00 per hundred.
" " 2 years old, fine, $12 00 " "
QUINCE STOCKS, Selected, Strong, $10 00 per thousand.
Second size suitable to bud First Season, with good culture, $6 00 per thousand.

Well packed, and delivered at the Depot, Utica, N. Y.
EASTMAN & CO., MAPLE GROVE NURSERIES,
September, 1858.—2t. Waterville, Oneida Co., N. Y.

STOCKS FOR NURSERYMEN.

WE offer to the trade, the coming fall, a large lot of first class Stocks, comprising
ANGERS QUINCE STOCKS, a prime article of our own growing, and cheaper than they can be imported.
MAZZARD CHERRY STOCKS, one year old, *strong*.
MAHALEB " " " "
PLUM STOCKS, one year, *very nice*.
APPLE STOCKS, two years, *very nice*.
Early orders solicited. Price list sent on application.
T. C. MAXWELL & BRO'S.
Geneva, Ontario county, N. Y., August, 1858.—2t

RUSSIA OR BASS MATS—Selected expressly for budding and tying. GUNNY BAGS, TWINES, &c., suitable for Nursery purposes, for sale in lots to suit, by
D. W. MANWARING, Importer,
August, 1858.—1y* 248 Front street, New York.

Prices of Agricultural Products at the Principal Markets in the United States, Canada and England.

	NEW YORK, Aug. 28th.		PHILADELPHIA, Aug. 28th.		ROCHESTER, Aug. 28th.		CHICAGO, Aug. 24th.		TORONTO, Aug. 28th.		LONDON, ENG, Aug. 9th.	
Beef, per 100 lbs.,					$4.50 @	$6.00	$2 00 @	$3.25	$4 50 @	$6.00	$8.25 @	$15.00
do mess, per bbl.,	$11.75 @	$14.75	$16.00 @	$16.50								
Pork, per 100 lbs.,					5.00	6.00	3.65	4.25			10 50	15.00
do mess, per bbl.,	16.00	17.00	17.75	18.25	16.00	18.00	16.25		18.00			
Lard, per lb.,	.11¾	.11¾	.12	.13	.11		.09	.10			.13	.17
Butter, do	.22	.19	.10½	.16	.12	.14	.06	.12	.12½	.18	.19	.23
Cheese, do	.05	.08	.08		.05	.08	.06	.11	.08	.10	.13	.15
Flour, per bbl.,	4.70	8 75	4.25	6.75	4.50	6.25	5.00		4.20	4.50	5.00	6.00
Wheat, per bush.,	1.02	1.65	1.10	1.42	1.22	1.30	.87	1.25	1.00	1.20	1.14	1.18
Corn, shelled, per bu.,	.76	.96	.83	.90	.68	.70	.64	.69	.65		1.02	1.08
Rye, do	.78	.83	.70	.85	.63		.70		.55	.60	.84	.90
Oats, do	.33	.53	.40	.46	.44	.45	.49	.51	.35	.38	.66	1.01
Barley, do	.55	.65			.56				.45	.50	.75	1.00
Clover Seed, do	4.90		5.25	5.50	4.00		4.50	5.00	4.50	5.00	4.80	5.20
Timothy Seed, do	2.25	2.50	2.25		1.75	2.25	1.25	1.37	1.50	2.00		
Flax Seed, do	1.95		1.65	1.68	1.00	1.12½	.70	.90			1.98	2.04
Hay, per ton,	6.00	10.00			7.00	9.00	2.00	6.00	8.00	12.00		
Wool, per lb.,	.28	.47	.33	.47½	.20	.34	.23	.33	.21		.36	.56
Wood, hard, per cord,					3.00	4.75			4.00	4.50		

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